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Occupational outlook information, long-range employment prospects by state and region: teachers [prepared for the Veterans' administration by the Occupational outlook branch, Bureau of labor statistics, U. S. Dept. of labor] Washington, U. S. Govt. print. off., 1949.
vi, 87 p. diagrs., tables. (Its VA pamphlet 7-4.13)

"Supplements ... Bureau of labor statistics Bulletin no. 940, Occupational outlook handbook."--Foreword.

RESTRICTIONS ON USE:

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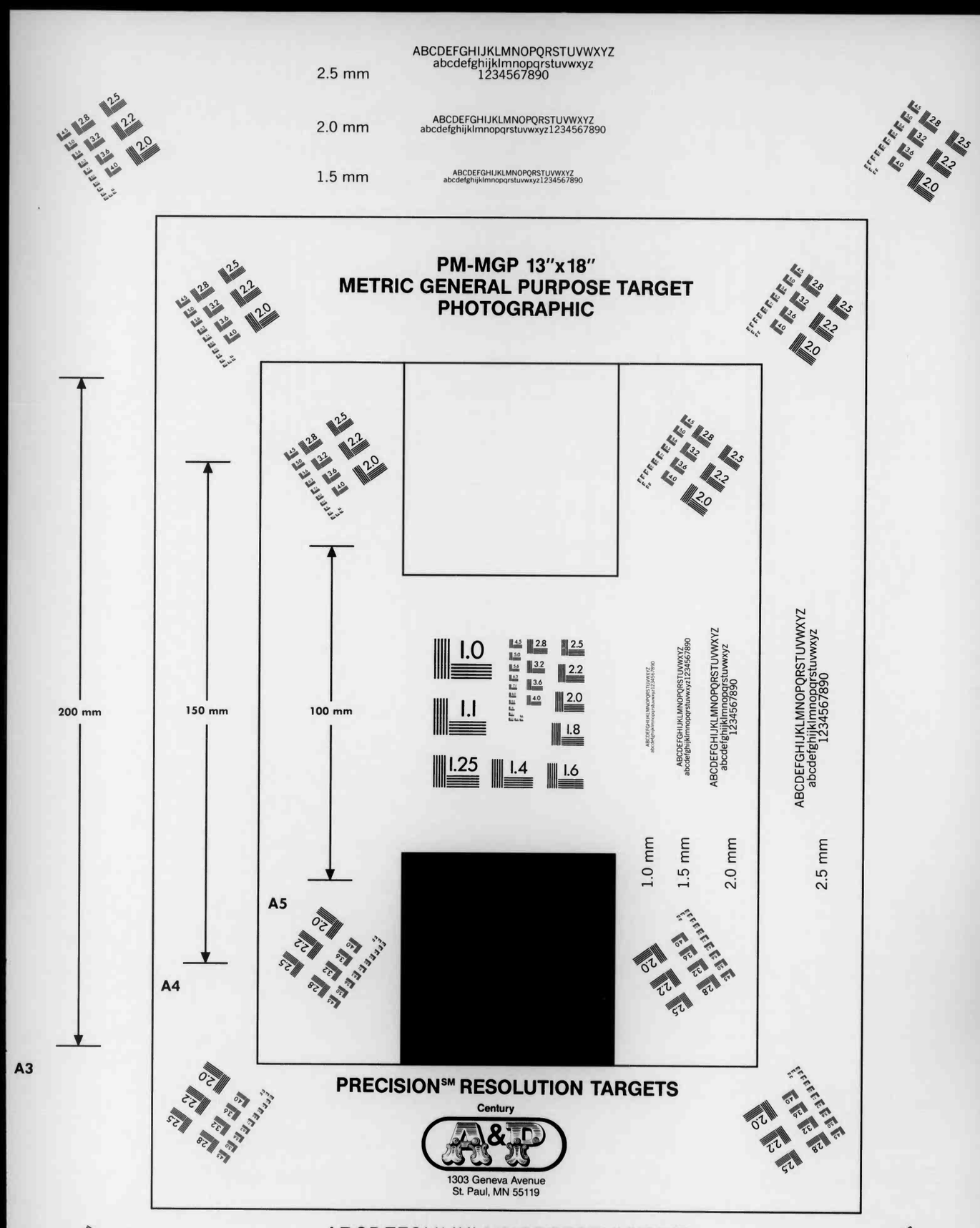
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OCCUPATIONAL OUTLOOK INFORMATION
LONG-RANGE EMPLOYMENT PROSPECTS

BY STATE AND REGION

TEACHERS

VETERANS ADMINISTRATION

WASHINGTON 25, D.C.

VA PAMPHLET 7-4.13

OCCUPATIONAL OUTLOOK INFORMATION
LONG-RANGE EMPLOYMENT PROSPECTS

BY STATE AND REGION

TEACHERS

THIS PAMPHLET IS ONE OF A SERIES COVERING LONG-RANGE EMPLOYMENT PROSPECTS OF A GROUP OF OCCUPATIONS BY MAJOR STATE, REGION, OR AREA (AS APPROPRIATE), FOR USE IN THE VOCATIONAL REHABILITATION AND EDUCATION ACTIVITIES OF THE VETERANS ADMINISTRATION, IN THE COUNSELING AND GUIDANCE OF VETERANS IN THE SELECTION OF EMPLOYMENT OBJECTIVES.

United States Government Printing Office
Washington: 1949

Business
D 399
Un 34

VETERANS ADMINISTRATION,
Washington 25, D. C.

VA Pamphlet 7–4.13, "Occupational Outlook Information—Teachers," is published for the information and guidance of all concerned. The material in this pamphlet has been prepared by the Bureau of Labor Statistics, United States Department of Labor, for the use of the Veterans Administration.

BY DIRECTION OF THE ADMINISTRATOR:
O. W. CLARK,
Executive Assistant Administrator.

Distribution:
DAL—Except Supply Depots (7).

NUMBERING SYSTEM AND DISTRIBUTION OF OCCUPATIONAL OUTLOOK INFORMATION PAMPHLETS

The VA pamphlet No. 7–4 has been assigned to this series of pamphlets which cover the long-range employment prospects of groups of occupations by major State, region, or area (as appropriate). Each pamphlet bears a decimal suffix in addition to the basic number: 7–4.1, 7–4.2, etc.

These pamphlets are issued to each regional and VA office; guidance center; VA and Army or Navy hospital at which personnel from the regional office are rendering advisement and guidance services; and to other personnel in the vocational rehabilitation and education activities whose responsibilities require their use.

MAY 29 1951 BB

FOREWORD

The information contained in this series of pamphlets supplements that contained in Bureau of Labor Statistics Bulletin No. 940, *Occupational Outlook Handbook*. Personnel of the vocational rehabilitation and education activities of the Veterans Administration, whose responsibilities require the use of these pamphlets, are instructed to read the introduction to the Occupational Outlook Handbook as the statements contained therein are for application insofar as they apply to the long-range employment outlook by State and region.

This pamphlet is in two sections: The first section is a statement on employment opportunities in the teaching profession in the country as a whole; the second includes separate employment outlook statements for the 48 States and the District of Columbia. Before reading the latter statements, it is important to read the first section; it contains information on the teaching profession as a whole which is not repeated in the discussions of the employment situation in the various States.

This report was prepared for the Veterans Administration by the Occupational Outlook Branch, Bureau of Labor Statistics, United States Department of Labor

The Bureau of Labor Statistics wishes to acknowledge the generous assistance and cooperation received in connection with the study from many persons in the field of education. Special acknowledgement is made to the U. S. Office of Education, State Departments of Education, National Education Association, State Education Associations, and American Federation of Teachers. The Bureau takes full responsibility for the analysis and interpretations made in this study.

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EMPLOYMENT OUTLOOK FOR ELEMENTARY AND SECONDARY SCHOOL TEACHERS

The Teaching Profession

Teaching is by far the largest of all the professions. In the school year 1948–49, about a million classroom teachers, principals, and supervisors were employed in the elementary and secondary schools to teach nearly 26,000,000 pupils. About 100,000 of these teachers and 3,000,000 of the pupils were in private and parochial schools.

This profession is especially important as a source of employment for women, who normally constitute about four-fifths of the teachers below the college level. Most men teachers—three out of every four in public school systems—are in high schools. However, educational authorities in many States would like to increase the number of men teachers and supervisors in the elementary schools.

Teaching offers widespread opportunities for employment. Every community in the United States employs teachers, and numerous job openings occur each year. Over half the public school teachers are in rural schools—that is, in schools outside incorporated towns of 2,500 population or more.

A far greater number of Negroes are employed in elementary and high school teaching than in any other profession. Separate school systems for Negroes are maintained in 17 States and the District of Columbia. Many cities in the northern part of the country employ Negroes in schools with white or mixed enrollments.

Kindergarten and elementary school teachers make up nearly two-thirds of the entire teaching profession below the college level. They numbered about 590,000 in 1948–49 (counting only those in public schools).[1] Teaching in the lower grades usually involves working with one group of pupils during the entire day, thus covering a wide range of subjects and activities. The teachers of art, music, and physical education employed in many schools are an exception. Some school systems have departmentalized instruction in the upper elementary grades or have separately organized junior high schools, in which case teachers usually handle two or three subjects with several different groups of pupils during the school day. Teachers in small rural schools may have to teach all subjects in several grades; the trend toward consolidated rural schools is, however, rapidly reducing the number of one-teacher schools. High school teachers, of whom about 325,000[2] were employed in 1948–49, generally teach only one or a few subjects to several groups of students. In addition, they are usually expected to supervise extracurricular activities.

A 5-day week is the customary work schedule in this profession. However, all teachers must spend considerable time on record keeping, lesson planning, grading of papers, and similar activities outside their scheduled hours. Much longer Christmas and spring holidays and summer vacations are given than in other professions. Often, a part of the summer vacation period must be spent in further study.

Many teachers devote much time to community activities and find that rewarding opportunities for civic leadership often accompany teaching. For the person who enjoys working with young people, teaching offers a stimulating and satisfying career in helping to mold the lives of future citizens.

Certification and Training

The requirements for certification to teach in public schools vary considerably by State. Typical requirements for high school teachers' certificates are a bachelor's degree, with the equivalent of about one-half year of professional education courses including student teaching, and with specialization in one or more subjects commonly taught in high school. The following three States and the District of Columbia require a fifth year

[1] National Education Association, *Advance Estimates of Public Elementary and Secondary Schools for 1948–1949.*
(See section on "Sources of Information and Estimating Procedures" for definition of elementary and secondary schools.)

[2] Op. cit.

of training for high-school certificates: California, New York, and Washington. Requirements for teaching in elementary schools are usually somewhat lower but generally include several professional courses in elementary education. Many school systems, especially in large cities, have additional requirements—with respect to educational preparation or successful teaching experience—beyond those needed for State certificates. Many States and local systems also have requirements concerning age, citizenship, and other factors.

During and since the war, all States have found it necessary to issue "emergency" or temporary certificates. The emergency teachers have a wide variety of qualifications. Some of them have bachelor's degrees and regular teaching certificates of some type, though they do not meet the exact specifications for the positions they are occupying. On the other hand, in some States it has been necessary to issue permits to people with no college training at all.

Satisfactory teacher-training curricula are offered at universities with schools of education, by colleges with strong education departments and adequate facilities for practice teaching, and by teachers colleges. A student who wishes to specialize in vocational subjects, such as agriculture, home economics, commercial work, or the like, should choose an institution accredited for work in the specific field and should take enough hours of education and practice teaching to meet certification requirements.

The prospective teacher should start early in planning his training. Before embarking on a course of study, he should find out about the education needed to become a good teacher and should also inform himself of his State's specific requirements for the type of position to which he aspires. Brief statements on the certificate requirements in each State as of 1948–49 are included in the second part of this report, but these do not give full details. Furthermore, State and city requirements, particularly the latter, are continually being changed.

Inexperienced teachers often start in rural schools or small-town school systems. Opportunities for advancement are by way of moderate salary increases in the same system, by transferring after a few years of experience to systems with higher salary schedules or other advantages, or by promotion to supervisory, administrative, or other specialized positions.

Outlook for Elementary Teachers

In 1948–49, there were shortages of qualified elementary teachers in practically every State. The teaching profession suffered serious losses both in numbers and in the educational preparation of its members during the war and first few postwar years. This was largely a result of the increased employment opportunities in other fields and the fact that teachers' salaries lagged behind the rapidly rising earnings in many other occupations. In order to meet the demand, approximately 90,000 emergency permits had to be issued in 1948–49, most of them to elementary teachers.

Enrollments in elementary-teacher-training courses dropped very sharply during the war and, though the numbers have increased considerably again, the supply of new teachers is still far from adequate. Only in Negro schools is the number of teachers approaching the demand. The 1949 output of new teachers qualified for regular elementary certificates has been estimated at only about 25,000—or 77 percent of the number who qualified in 1941, when the need was less (see chart 1). Many of these teachers meet minimum requirements of only 30 semester hours of college training; those with 4 years of college preparation for elementary work are estimated to number less than 15,000.[3] The supply will be far from adequate to meet the estimated demand for 75,000 new teachers for the 1949-50 school year.[4]

The total number of teachers needed for grades below the high school level will continue to mount until the late 1950's, owing to increasing elementary school enrollments resulting from the abrupt rise in the birth rate since 1940. Assuming that 1947 was the peak year for births, total enrollment in grades 1 to 8 will be greatest (about 26½ million) in 1957.[5] Chart 2 shows the sharp increase in elementary school enrollments which may occur during the next 8 years and the gradual decline expected during the 3 years following. The estimated number of teaching positions is, of course, directly related to enrollments. Assuming a ratio of one teacher for each 30

[3] Maul, Ray C., *Teacher Supply and Demand in the United States.* National Education Association, 1201 Sixteenth Street, N.W., Washington 6, D. C., 1949.

[4] National Education Association, *Probable Demand for Teachers in the United States for the Decade 1949–50 through 1958–59.* Mimeographed, 29 pp.

[5] U. S. Department of Commerce, Bureau of the Census, Series P–25, No. 18, *Forecasts of Population and School Enrollment in the United States: 1948 to 1960,* 1949.

CHART 1

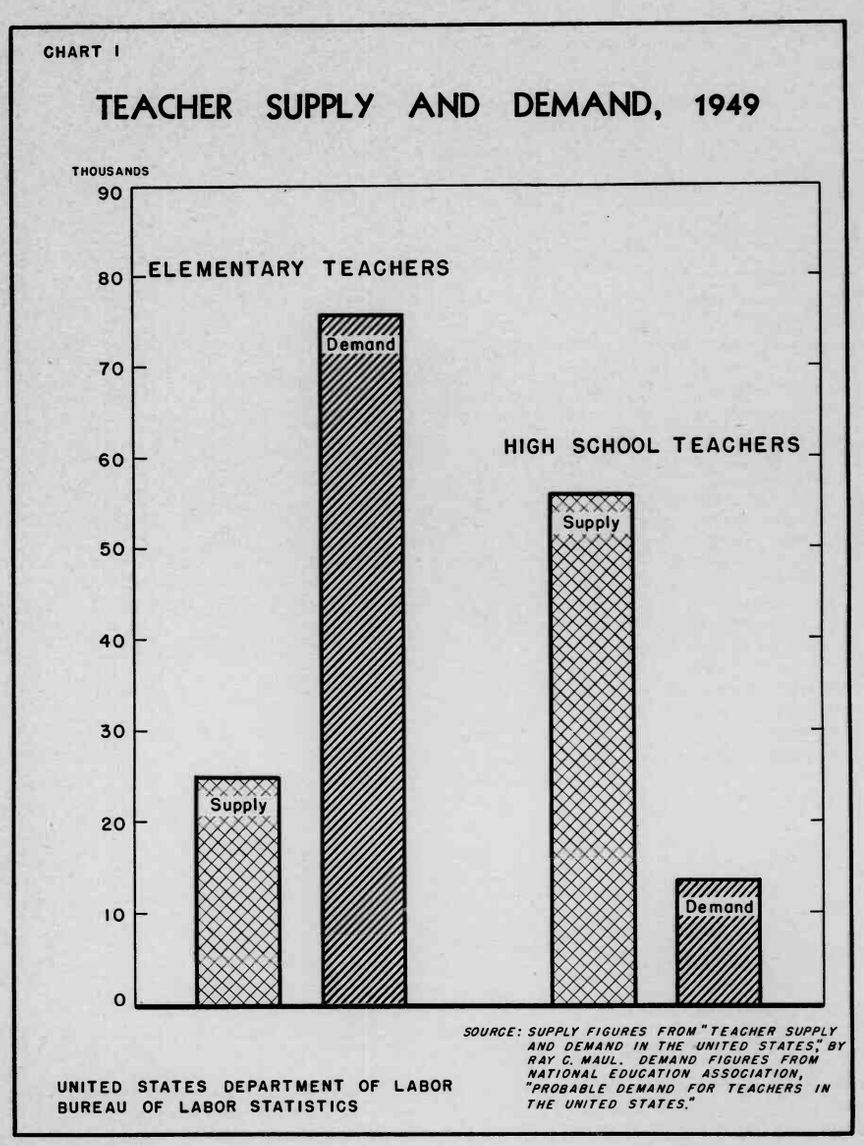
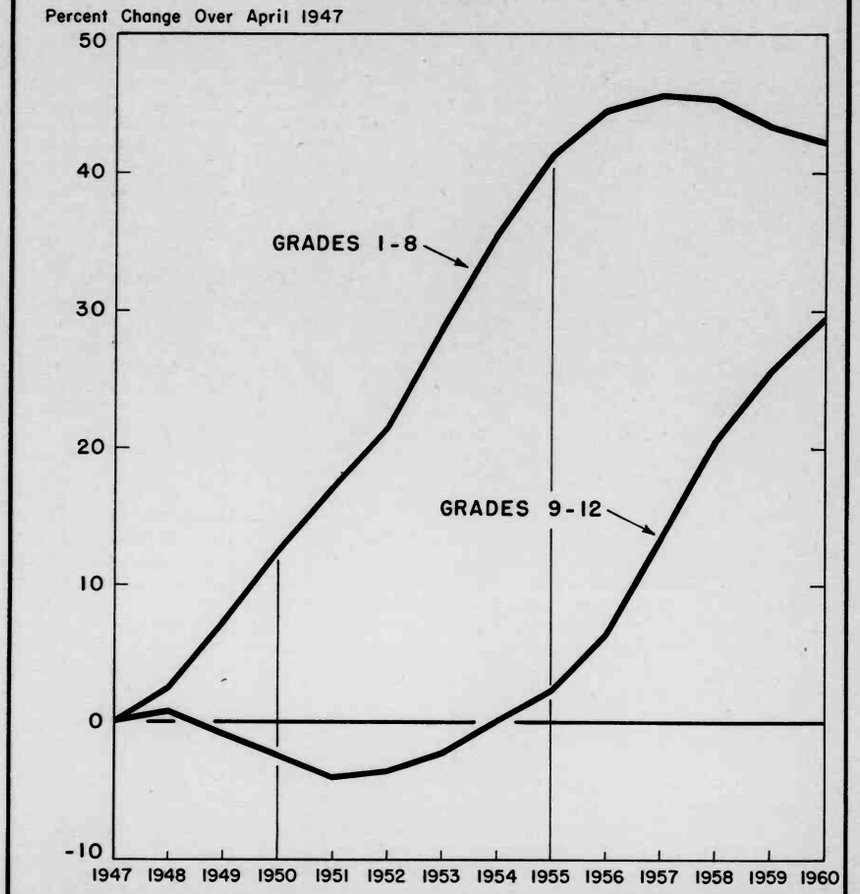


CHART 2

FORECASTS OF SCHOOL ENROLLMENTS

1948 - 1960



UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

Source: BUREAU OF THE CENSUS, SERIES P-25, NO. 18, FEBRUARY 1949, p. 16

pupils (the highest ratio regarded as generally acceptable by educational authorities), the total number of elementary teaching positions in all schools—public, private, and parochial—may increase by more than 260,000 by 1957. The number of new teachers required annually will be greatest about 1953, when over 40,000 may be needed to take care of the increase in enrollments (on the above assumption as to the pupil-teacher ratio). Whether new teachers will actually be added at this rate will depend on many factors, notably the availability of personnel and of the necessary classroom space.

In the teaching profession many more teachers are required each year as replacements than for new jobs, even in a period of rapid growth of school population (see chart 3). The large number of young women who enter the profession and then withdraw because of marriage or for other reasons creates an attrition rate higher than for most occupations. While there have been some studies made of attrition in the teaching profession, there is little data on which to base an overall replacement rate. On the basis of a conservative rate of 7 percent, it is estimated that 560,000 elementary school teachers will be required in the next 10 years to replace those who die, retire, or leave the classrooms for other reasons. The drop-out rate varies greatly among States; estimates ranged from 3 percent to 18 percent for 1948–49 in 19 States for which information was available.[6] One factor which greatly influences this rate is the amount of preparation which elementary teachers have had in the given State. In general, those who have invested four full years in teacher-training are likely to regard the profession as their career and to have a much lower drop-out rate than those with little or no special training for elementary teaching.

Besides the teachers who die, retire, or withdraw for other reasons, many of the persons who are now teaching on emergency certificates will need to be replaced. However, there is no way of knowing what proportion of these teachers will remain in the profession and, by taking additional training, meet standard certification requirements in their respective States.

Summing up the demand for elementary teachers in the next 10-year period (1949–50 through 1958–59), it is estimated that at least 800,000 new teachers will be required to handle new enrollments and replace teachers who withdraw from the profession. In addition, a sizeable but unknown number will be needed to replace emergency teachers.

It appears extremely unlikely that enough adequately trained elementary teachers will be produced in the next few years to meet the rising demand. It is, of course, impossible to predict the number of persons who may enroll in teacher-training institutions or the proportion of graduates who will go into teaching. But the shortage of elementary teachers is no new development. The great increase in the number of occupations open to women and the better earnings offered in some other fields had an adverse effect on the supply of elementary teachers in the 1920's. This trend was interrupted during the depression years of the 1930's and then became most pronounced of all during and after World War II.

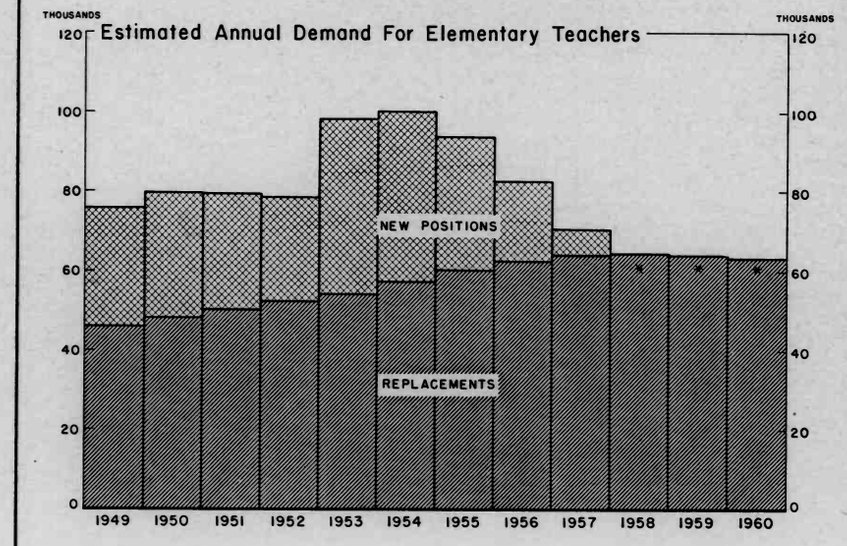
In the future as in the past, the other employment opportunities available and the relative salaries offered will be chief among the many factors affecting the supply of new teachers. Teachers' salaries have recently had an upward trend. And "single-salary schedules," providing the same pay for elementary as for secondary teachers with equivalent education and experience, are being established in more and more communities; this development should help to attract more prospective teachers into the elementary field. If the economic situation should become worse and considerable unemployment should develop, many young people may enter teacher-training and many former teachers may return to the profession; because of its relative stability and because salaries usually decrease less rapidly in the teaching field than in many others, the profession is considered more desirable in periods of economic depression than in boom periods. The present oversupply of teachers trained for high school teaching may also result in many transfers to elementary teaching; a number of States have already established special courses to prepare teachers for such transfers. Thus, the shortage of elementary teachers could, under certain circumstances, be greatly reduced within a short time. Requirements for elementary teachers will be raised in many States as soon as the supply permits; so the prospective teacher will do well to get the best possible training in an approved teacher-training institution.

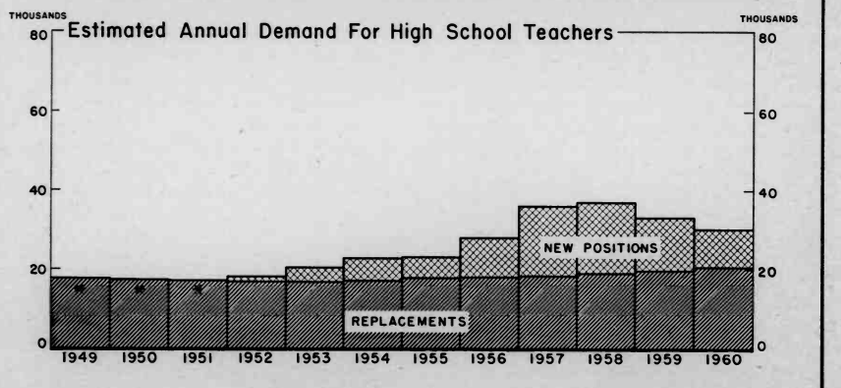
On the other hand, the number of elementary teachers needed could well exceed the estimates

[6] Maul, Ray C., op. cit., p. 2.

CHART 3

MORE TEACHERS ARE NEEDED AS REPLACEMENTS THAN FOR NEW POSITIONS





UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

* No deduction has been made for positions which may be left unfilled because of decreasing enrollments.

Source: NATIONAL EDUCATION ASSOCIATION, "PROBABLE DEMAND FOR TEACHERS IN THE UNITED STATES FOR THE DECADE 1949-50 THROUGH 1958-59, FOR THE PERIOD 1948-60, INCLUSIVE," MIMEOGRAPHED, 29 PAGES.

given above. These estimates do not take into account any extension of school services to the preschool group. If, by 1960, school services were provided for 25 percent of children 2 to 5 years of age, at least 100,000 new nursery and kindergarten teachers would be needed.[7] Furthermore, the estimates do not include any provision for the reduction of class size in many schools where the average is over 30 pupils per teacher. While the over-all average for the elementary schools of the country is slightly under 30 to 1, the distribution of the school-age population is such that it is impossible to shift pupils from overcrowded schools to those (usually rural schools) with underaverage enrollments. Many school authorities recommend a ratio of not more than 25 pupils per teacher. Reduction of average class size to 25 to 1 would require an additional 142,000 teachers by the end of the decade.[8]

It is of interest to consider the probable trends in the employment of teachers beyond 1960. The Bureau of the Census has prepared forecasts of population to the year 2000.[9] Though the age groups for which forecasts are given do not correspond with the age composition of the elementary grades, the projections for the group 5 to 14 years of age serve to show the general trends expected. The outlook for the 5–14 group after 1960 is for a continuation of the downward trend to 1970 (according to Census Bureau estimates assuming medium fertility, medium mortality, and no immigration). From 1970 to 1980, a slight increase is anticipated, as the children of the babies born during the war enter the school-age group. The forecast from 1980 to 2000 is for a decline in population aged 5 to 14. What these estimates mean in terms of teacher employment cannot be determined because of such varying factors as amount of support of education, changing pupil-teacher ratios, enrichment of the curriculum, and increased holding power of the schools. However, it appears likely that teacher employment will not fall below the 1945 level for at least the following 40 years. There are many reasons to believe that 1985 teacher employment may exceed the earlier level.

[7] National Education Association, op. cit., p. 2.

[8] National Education Association, op. cit., p. 2.

[9] Bureau of the Census, *Forecasts of the Population of the United States 1945–1975*. Superintendent of Documents, Washington, D. C., 1947.

Outlook for High School Teachers

In most States, an oversupply of high school teachers in many subject fields is developing and may well continue for at least a few years. The number of students completing training for high school teaching in 1949 has been estimated at nearly 56,000—a higher number of such graduates than were produced in any previous year and over twice the number of students completing preparation for elementary work in 1949 (see chart 1). The supply of secondary teachers exceeds the annual demand anticipated during the next few years by at least 40,000. Of course many of these graduates will not seek teaching positions. Moreover, the distribution both by locality and by subject field is such that some schools may suffer shortages while others have many applicants for each job. In general, shortages are most prevalent in rural areas. Among the subject fields in which widespread shortages of personnel were expected to continue at least during 1949–50, and probably longer, were home economics, commercial work, and industrial arts. The greatest oversupply of teachers appears to be in the social sciences, men's physical education, and English.

The proportion of teacher-trainees preparing for high school positions will probably tend to decrease as the practice of equal pay for equal preparation and experience, regardless of position, becomes more widespread, and as elementary teachers receive greater recognition, and training programs are improved. Thus, the imbalance between the supply of elementary and secondary teachers may be reduced. While some of the people trained for high school teaching may find employment in the seventh and eighth grades, particularly in organized junior high schools, training for high school teaching is not generally acceptable in the lower grades. As already indicated, many States now have retraining programs, so that persons trained as high school teachers may take short courses to prepare for elementary teaching.

Enrollments in grades 9 to 12 are expected to decline until about 1952, rise slowly for the following 3 years, and then increase rapidly to about 1961 or 1962 (see chart 2). These are the developments anticipated in the Nation as a whole; in individual States, the trends will be somewhat different, as indicated in later sections of this report. It is probable, however, that the need for high school teachers will be limited largely to re-

placements for the next few years in the great majority of States. Available information on attrition in the profession indicates that the rate of withdrawal is generally lower among high school teachers than elementary teachers; the National Education Association estimates the average annual replacement rate over the next decade at 5 percent. Based on this rate, the annual demand for teachers in grades 9 to 12 will be around 17,000 in 1949–50 and the succeeding year or two. As enrollments increase, additional teachers will be required for new classes. Assuming a ratio of 25 pupils per teacher, approximately 85,000 new teachers will probably be needed between 1952 and 1960 to handle additional enrollments. The number of teachers required for replacement purposes will probably be over 20,000 per year by the end of the 1950 decade (see chart 3).

There are several factors which may increase high school enrollments beyond the estimates given above. Past trends show a tendency toward a rising standard of education in the United States, and it is expected that these trends will continue. The proportion of young people attending high school increased from 32 per 100 population 14 to 17 years of age in 1920, to 51 in 1930, and 73 in 1940. The number graduated from high school increased from 29.1 per 100 persons 17 years of age in 1930 to 50.8 in 1940. A further increase in high school attendance is anticipated as educational facilities are extended and job requirements are raised to require a high school education for entry into more jobs. Greatly increased Federal or State aid to education might expand high school enrollments considerably. Because of the desirability of enriching the curriculum and reducing the number of pupils per teacher, the number of teachers may increase at a greater rate than has been allowed for in the projections of teacher employment to 1960.

The long-run outlook in employment of high school teachers beyond 1960 is indicated to some extent by the forecasts of population in the age group 15 to 19.[10] These forecasts follow somewhat the same pattern as those for the 5 to 14 year group discussed in the previous section. Based on population alone, it appears that employment of secondary teachers should be higher throughout the 40-year period (1960 to 2000) than in 1950. Because of the factors mentioned in the preceding paragraph, teacher employment may well be substantially higher during this period than in 1950.

[10] Bureau of the Census, op. cit., p. 7.

Earnings

In 1948–49, the estimated average salary of all instructional staff (classroom teachers, principals, and supervisors) in the Nation's public schools was $2,750. This represents an increase of approximately $200 over the average for the previous year, and an increase of about $1,300 over the 1939–40 average. There is evidence that salaries will be higher in 1949–50 than in 1948–49 in many localities.

The salaries of individual teachers have a wide range both above and below the national average. In general, salary scales are lowest in rural schools. Some school systems still have higher pay schedules for men than for women, but this practice is becoming less and less prevalent, especially in large cities. There are also many school systems which pay elementary teachers less than those in high school. However, schedules of the single-salary or preparation type, in which the salary is dependent on the teacher's educational preparation and experience rather than on the position held, are being adopted more and more widely. Under this plan, for example, a teacher with a bachelor's degree and 5 years' experience would receive the same salary regardless of whether his pupils were kindergarten children or high school seniors. More than 9 out of every 10 cities with over 100,000 population now have single-salary schedules, but this type of schedule is still rare in small towns and rural schools.

Figures on salaries in the different States are given in the second part of this report.

Where To Get Additional Information

Information on State certification requirements may be secured from the department of education at the State capitol or from one of the accredited teacher-training institutions in the State. Information on a specific school system may be requested from the superintendent or principal in charge.

General information on teaching may be obtained from:

Office of Education
Federal Security Agency
Washington 25, D. C.

National Education Association
1201 Sixteenth Street NW.
Washington 6, D. C.

American Federation of Teachers
28 E. Jackson Boulevard
Chicago 4, Ill.

Most beginning teachers and many experienced ones secure their positions through the placement services conducted by the institutions of higher education which they attended. State-wide teacher-employment services are conducted by several State departments of education, State education associations, and State employment services. There are also many private (commercial) teacher-placement agencies (a list of those agencies belonging to the National Association of Teachers' Agencies may be secured from the Federal Security Agency, Office of Education, Washington 25, D. C.). Many teachers find positions through contacts made in educational organizations or at educational conferences.

EMPLOYMENT OUTLOOK FOR ELEMENTARY AND SECONDARY SCHOOL TEACHERS BY STATE

ALABAMA

Number of Teachers and Enrollments

About 65 percent of the 20,800 classroom teachers, principals, and supervisors in the Alabama public schools in 1948–49 were engaged in teaching 492,000 children in the elementary grades. Approximately 161,000 students were enrolled in the secondary schools. Only about 5 percent of the public school teachers were in one-teacher schools, since many of the pupils (about one-third) are transported to larger schools by bus. About 30 percent of the teachers and 35 percent of the pupils were Negroes.

Certification Requirements

Alabama issues several types of certificates, depending on training, experience, previous type of certificate held, and subjects taught. The class C elementary professional certificate is the lowest regular certificate granted to inexperienced persons and requires completion of a 3-year program in a standard institution approved for the training of elementary teachers. The curriculum of 144 quarter hours must include 30 quarter hours of education courses, of which 3 to 12 must be in directed teaching. A class C certificate is valid for 6 years and entitles the holder to teach in grades 1 to 6 or in junior high school grades as conditions may require.

The class B and class A elementary professional certificates require a bachelor's degree and a master's degree, respectively, and the prescribed credits in professional education, English and social studies courses, are considerably higher than for a class C certificate. Class B certificates are valid for 8 years; class A certificates, for 10 years.

The minimum educational requirements for a class B secondary temporary professional certificate, which is good for 3 years only, are a bachelor's degree from an approved institution and prescribed credits as follows:

Subject	*Quarter hours*
Education	27
English	18
Social studies	18
Academic major in an approved subject	27
Academic minor in an approved subject	18

The class A professional secondary certificate requires the master's degree and is valid for 10 years.

Emergency certificates are issued to those not meeting the requirements for other certificates when qualified applicants are not available.

Outlook

Employment prospects for elementary teachers in white schools are excellent for 1949–50 and the next few years. Teachers are needed to take care of increasing enrollments as well as to replace some of the persons employed on emergency certificates (4,700 such certificates were issued in 1948–49, most of them for elementary teaching). In addition, it is estimated that about 12 percent, or 1,600, of the elementary staff (those in grades 1 to 8) leave teaching in the State each year, and new teachers are needed to replace them. Only about 420 white students were expected to complete preparation in teacher-training institutions in the State in June 1949. However, large enrollments in summer school were anticipated in this State and school authorities expected a few hundred additional teachers to complete preparation. Even so, the total number of qualified teachers for white schools will be far from adequate.

The supply of Negro elementary teachers is approaching the demand; 694 students completed preparation for elementary teaching in teacher-training institutions in the State in 1948, and only 506 new teachers were hired in 1948–49.

It is expected that employment of elementary teachers will continue to rise for at least the next 6 or 7 years. Enrollments in grades 1 to 8 will in-

crease each year until about 1956–57, when they may be almost 160,000 higher than in 1948–49. On the basis of 30 pupils to a teacher, the increased enrollments would require about 5,300 additional teaching positions over the 8-year period. While these additions to the staff may tend to increase the number of replacements needed, the proportion who leave the profession is expected to decrease somewhat from the 1949 rate of 12 percent. Even if the attrition rate is reduced to as low as 7 percent, approximately 1,300 new teachers will be needed annually as replacements during the latter years of the 1950 decade.

High-school teachers, on the other hand, are already in oversupply in most subject fields. Secondary school enrollments are expected to remain at about the same level through 1952. Some few new teaching positions may be added as the secondary schools now under construction are put into operation, but the need for new teachers will be chiefly as replacements for those who leave the profession in the State; this number is estimated to be approximately 7 percent or 500 annually. The supply of newly trained teachers (over 1,300 were expected to graduate in 1949) indicated that the number of secondary teachers would be ample to meet the demand in most localities and in most teaching subjects. An oversupply of English and social science teachers was already in evidence. However, there still existed a shortage of library science, physical science, and music teachers.

After 1952, the number of high school students and teaching positions will increase each year, as the peak enrollments pass from the elementary into the secondary schools. By 1959–60, enrollments in grades 9 to 12 are expected to be about 50,000 higher than in 1952–53. On the basis of 25 pupils per teacher, the expanded enrollments would require 2,000 new teaching positions over the period. In addition, the annual need for teachers as replacements will probably increase with the expansion in the staff and could well require 650 teachers in the latter years of the 1950 decade.

Earnings

Classroom teachers in the secondary schools of Alabama had an average salary of about $2,150 in 1948–49; elementary teachers averaged about $1,600. A study of teacher salaries in 1947 showed that elementary teachers were better paid in relation to their training than high school teachers and that rural teachers were better paid, relative to their training, than city teachers.

The following cities have single-salary schedules which provide for pay in terms of training completed rather than for the positions held. Thus, a grade school teacher receives the same salary as a high school teacher if she has equal preparation. In 1948–49, the salary schedules were as follows:

Educational preparation	Annual salary		
	Minimum	Increments	Maximum
Birmingham:			
Master's degree	$2,052	11 @ $135 1 @ 105	$3,642
Bachelor's degree	1,962	11 @ 135 1 @ 95	3,542
3 years	1,200	7 @ 108 1 @ 44	2,000
2 years	1,100	6 @ 108	1,748
1 year	1,000	3 @ 108	1,324
Mobile County, including Mobile [1]			
Master's degree	1,850	5 @ 50 10 @ 100	3,100
Bachelor's degree	1,750	5 @ 50 9 @ 100	2,900
3 years	1,600	14 @ 50	2,300
2 years	1,450	13 @ 50	2,100
Less than 2 years	1,150	13 @ 50	1,800
Montgomery County, including Montgomery:			
Master's degree	2,016	3 @ 63 1 @ 126 4 @ 63	2,583
Bachelor's degree	1,890	7 @ 63	2,331
3 years	1,395	None	1,395
2 years	1,260	None	1,260
Less than 2 years	1,125	None	1,125

[1] Salaries shown are exclusive of cost-of-living adjustment; in 1947–48 the amount was $105.

ARIZONA

Number of Teachers and Enrollments

The public schools of Arizona employed about 4,500 teachers, principals, and supervisors to teach approximately 140,000 pupils in 1948–49. About three-fourths of the teachers and pupils were in the elementary schools. The proportion of men teachers in all schools was unusually large, amounting to nearly 25 percent. The school systems of Phoenix and Tucson together employed almost 1,000 teachers.

Certification Requirements

Arizona has one of the best trained staffs in the country. Almost 95 percent of the elementary teachers have at least a bachelor's degree.

Minimum State educational requirements for regular kindergarten-primary certificates (valid for grades K to 3) and elementary certificates (good for grades 1 to 9) are as follows:

(*a*) Bachelor's degree from a university or college authorized to prepare teachers.

(*b*) 24 semester hours in education and psychology appropriate to kindergarten-primary or elementary school teaching, including 8 semester hours of directed practice teaching.

For presecondary certificates, valid for 2 years for teaching grades 7 to 12, new applicants must have:

(*a*) Bachelor's degree from an accredited university or college and, in addition, not less than 6 semester hours of graduate credit.

(*b*) A major of 24 semester hours and a minor of not less than 15 semester hours in fields or subjects usually taught in high schools or a major in a non-high school field and two minors in fields or subjects usually taught in high schools.

(*c*) 18 semester hours in education and psychology appropriate to secondary school teaching, of which 5 hours must be directed practice teaching in grades 7 to 12.

A presecondary certificate may be renewed once, if the holder has completed 12 additional semester hours of acceptable graduate work and 2 years of successful teaching in Arizona public schools. By the end of the second 2-year period, the holder must qualify for a regular secondary certificate. For this type of permit, a master's degree, or not less than 30 hours of acceptable graduate work is required. Course requirements are the same as for the presecondary certificate, except that 6 hours of graduate courses in education are added.

Outlook

Arizona expects a shortage of primary teachers in 1949–50. The supply of teachers for other elementary grades will probably be ample in metropolitan areas though not in all outlying districts. In 1948–49 it was still necessary to employ some teachers with only emergency certificates, chiefly in rural schools; 160 such certificates were issued to elementary teachers. In the fall of 1949 an effort will be made to find qualified teachers to replace many of these people, as well as to supply new teachers where needed because of increased enrollments and to fill positions vacated by teachers leaving Arizona grade schools. The number of vacancies arising from deaths, retirements, and withdrawals will probably be about the same as in 1948–49; about 216 or 7 percent of the elementary teaching staff. The supply of new elementary teachers completing preparation at the State's teacher-training institutions in 1949 has been estimated at 220. In addition, Arizona will probably attract some out-of-State teachers, since the salaries offered are higher than in nearby States.

Elementary enrollments (grades 1 to 8) are expected to increase, as a result of the high birth rates of the war and postwar years and continued in-migration, until about 1957–58, when approximately 42,000 more children may be enrolled than in 1948–49. If one teacher were hired for every 30 new pupils, then about 1,400 additional teachers would need to be recruited during that 9-year interval to handle the increased enrollments. As the size of the teaching staff grows, the number of vacancies created each year by teachers who retire or withdraw for other reasons will tend to increase; assuming that the rate of withdrawals remains about 7 percent of the elementary teaching staff, there may well be over 300 such vacancies each year in the late 1950's.

The supply of high school teachers is expected to be enough or more than enough to wipe out shortages in 1949–50 except in homemaking departments. It was estimated that 254 students in Arizona colleges would qualify for standard high school teaching certificates in 1949. Very few teachers will be needed for new classes, as high school enrollments (grades 9 to 12) will probably decline somewhat. The supply of secondary teachers will, no doubt, be far greater than the number needed to replace those withdrawing from Arizona schools (only about 110 replacements were needed in 1948–49) and the few remaining staff members with substandard qualifications. Competition for positions will generally be keen, especially in such fields as social science and men's physical education.

Employment opportunities for secondary teachers will increase considerably during the 1950 decade. Enrollments are expected to rise each year from about 1952 to 1960 and beyond. By 1959–60 there may be about 13,000 more high

school students than were enrolled in 1950–51. Assuming a ratio of 25 students per teacher, this would call for the employment of 520 more teachers than were employed 10 years before. The demand for teachers as replacements for those who die, retire, or withdraw for other reasons will also tend to rise. If the rate of withdrawal is around 9 percent, as it was in 1947–48, then the annual replacement need is likely to rise to about 150 by the end of the 1950 decade.

Earnings

In 1948–49, Arizona high-school teachers had an average salary of about $3,700, the third highest average for any of the States. Elementary teachers had a higher average salary than in any other State—$3,400.

The salary schedules for the two largest cities in 1948–49 were as follows:

Educational preparation	Annual Salary		
	Minimum	Increments	Maximum
PHOENIX [1]			
Elementary School District:			
Bachelor's degree	$2,470	10 @ $190	$4,370
Bachelor's degree plus 18 hours	2,565	10 @ 190	4,465
Master's degree	2,660	10 @ 190	4,560
Union High School District:			
Less than Bachelor's degree	[a]	[a]	2,600
Bachelor's degree	[a]	[a]	3,200
Master's degree	[b] 2,000	5 @ 200 2 @ 150 2 @ 100	3,500
Merit recognition [c]		5 @ 100	4,000
Doctor's degree	2,200	5 @ 200 2 @ 150 2 @ 100	3,700
Merit recognition [c]		5 @ 100	4,200
TUCSON			
Bachelor's degree	2,592	2 @ 96 8 @ 192 1 @ 96	4,416
Bachelor's degree plus 30 hours	2,688	1 @ 96	4,512
Master's degree	2,784	1 @ 96	4,608

[1] Salaries shown are exclusive of cost-of-living adjustment amounting in 1948–49 to $1,514.

[a] Master's degree and 1 year of teaching experience are required of new applicants; therefore, schedule does not specify minimum salaries for teachers without master's degree.

[b] Teachers with master's degree but no teaching experience (not more than 5 percent of teaching staff) are employed at $1,800, plus cost-of-living adjustment, for their first year.

[c] Merit recognition increments are granted teachers who show superior interest in contributing to the improvement of education.

ARKANSAS

Number of Teachers and Enrollments

In the 1948–49 school year there were 13,000 classroom teachers, principals, and supervisors for 422,000 pupils in the public schools; only about one-fourth were in urban schools (those in cities with a population of 2,500 or more). The elementary schools employed 8,000 teachers for 338,000 pupils; about 2,000 of these teachers and 91,000 of the pupils were in schools for Negroes. Secondary schools had 5,000 teachers and 84,000 students, including about 660 Negro teachers and 10,160 Negro students.

Certification Requirements

Minimum educational requirement for a 3-year elementary certificate is 30 semester hours of the elementary curriculum in an approved college.

For the junior high school certificate, completion of at least 60 semester hours of the high school curriculum at an approved college is required. The courses taken must include 12 hours of education, of which 3 must be in directed teaching.

To qualify for a high school certificate, one must be a graduate of an approved 4-year college. The training must include at least 18 hours of education, of which 5 must be in directed teaching. The minimal semester hours required for teaching specified subject fields vary considerably, ranging from 8 for physics and several other subjects to as high as 24 for English.

Certification at all teaching levels requires a course in natural resources or nature study.

Emergency certificates are issued when necessary to those whose qualifications do not meet regular certification requirements.

The prospective teacher must be at least 18 years of age and must furnish proof of good health.

Outlook

Employment opportunities for elementary teachers will be excellent over the next few years. Teachers are needed to take care of increasing enrollments resulting from the high birth rates of the early 1940's and to fill about 200 positions that were vacant in 1948–49, as well as to replace some of the persons teaching on emergency certificates (2,400 such certificates were issued in 1948–49). In addition, it is estimated that around 750 teachers were needed in 1948–49 as replacements for those who left teaching in the State; it is probable that a similar number will be needed in 1949–50. That the supply of elementary teachers is inadequate to meet the demand is indicated by the fact that only about 1,238 students were expected to complete preparation in State teacher-training institutions in 1949. Shortages of men teachers and of teachers for rural schools are particularly acute.

Furthermore, demand for elementary teachers will remain high throughout the next decade. Enrollments in the first eight grades are expected to increase each year until about 1955–56, when they may be 54,000 higher than in 1948–49. On the basis of 30 pupils to a teacher, this increase in enrollments would require 1,800 additional teaching positions, an average of about 250 per year over the 7-year period. If the number of new elementary teachers needed as replacements for those who leave teaching in the State remains around 9 percent, as in 1948–49, nearly 900 may be needed annually in the mid-1950's and throughout the last part of the decade.

Very few teachers will be needed to fill new high school positions between 1949 and 1952, since enrollments are expected to remain at about the same level or even decrease slightly. However, teachers will be needed for the 100 to 150 positions left unfilled in 1948–49 and to replace some of the teachers holding emergency certificates; about 700 such certificates were issued to secondary teachers in 1948–49. In addition, it is likely that as many new teachers will be needed in 1949–50 as replacements for those who leave high school teaching in the State as were needed the previous year (about 250 or 5 percent of the high school teaching staff). In relation to these needs, teacher-training institutions in the State were expected to prepare 1,068 students for high school teaching certification in 1949, as compared with 722 in 1948 and 557 in 1941. It appears that the supply will be adequate to meet the demand for teachers in most subject fields.

Some new secondary school positions will open up after 1952. About that time, enrollments in grades 9 to 12 will begin to increase. By 1959–60, they may be around 32,000 higher than in 1948–49. On the basis of a 25 to 1 pupil-teacher ratio, this increase in enrollments would require 1,280 additional teaching positions, or an average of 160 per year over the 8-year period from 1952–53 through 1959–60. As the staff is expanded, the number of teachers who leave the profession will tend to increase; in the latter years of the 1950 decade, as many as 300 new teachers may be needed as replacements, assuming a continued withdrawal rate of 5 percent.

Earnings

Average annual salaries in 1948–49 were $1,223 for elementary teachers and $1,770 for secondary teachers. The single-salary schedules in effect in 1948–49 in two of the largest cities, Little Rock and Fort Smith, were as follows:

Educational preparation	Annual salary		
	Minimum	Increments	Maximum
LITTLE ROCK			
Majority credit from nonaccredited institution	$1,223	14 @ $11	$1,377
Less than 3 years of college	1,503	14 @ 33	1,965
3 years of college	1,643	14 @ 35	2,133
Bachelor's degree	1,803	14 @ 42	2,391
Master's degree	1,938	14 @ 55	2,708
FORT SMITH			
60 semester hours of college	1,500	4 @ 50	1,700
90 semester hours of college	1,600	6 @ 50	1,900
Bachelor's degree	1,700	10 @ 70	2,400
Master's degree	1,800	10 @ 100	2,800

CALIFORNIA

Number of Teachers and Enrollments

In 1948–49 about 51,200 full-time teachers were employed in the California public schools (kindergarten through grade 12). There were 31,000 teachers for 1,152,800 pupils in the elementary grades (K to 8), and 20,200 teachers for 353,300 students in the secondary schools (grades 9 to 12). Nearly a fourth of all the teachers were men.

Less than 3 percent of all teachers were in one-teacher schools.

Kindergartens are organized to serve a large part of the population. The above figures for 1948–49 include over 122,000 kindergarten pupils and their 2,420 teachers. Separate junior high schools serve over half the pupils in that age group (12 to 14 years).

Certification Requirements

The basic minimum educational requirements for all regular credentials for elementary or junior high school teaching are completion of one approved 4-year college course, with a bachelor's degree, and either completion of a course or passing of an examination on the provisions and principles of the Constitution of the United States. Preparation for the credential which authorizes the holder to teach in kindergarten and grades 1, 2, and 3, must include a major in kindergarten-primary education and 24 semester hours of professional work in education of which not less than 8 semester hours must be directed teaching. For the general elementary credential the candidate must have completed 24 semester hours of professional work in education, including 8 semester hours of directed teaching and adequate preparation in teaching the basic elementary school subjects. For the junior high school credential, 18 semester hours of professional work in education must be completed, including 4 hours of directed teaching; also, a major and a minor in subjects taught in high school, or a major in education and two minors in high school subjects.

For a general secondary school credential, the candidate must have a bachelor's degree and have completed a full year of graduate work (not less than 24 semester hours), including at least 6 hours of professional work in education. His total training must include 18 semester hours of professional work in education, of which 4 hours were in directed teaching. He also must have completed either (a) one major (24 hours, of which at least 12 were in graduate courses) and one minor (12 hours, including at least 6 in graduate courses) in high school subjects or (b) a major in a field not commonly accepted for high school graduation and two minors in high school subjects.

Emergency credentials are issued to persons with lower qualifications through the county superintendent for specific positions and only if no qualified regularly certified applicant of the type needed is available. Such credentials may be converted to provisional elementary or provisional kindergarten-primary credentials after completing 2 years of successful experience and contain 2 years of college work.

All applicants must be 18 years of age and submit a certificate of good health; must swear allegiance to the United States; and must be an American citizen or intend to become one.

Outlook

The acute shortage of kindergarten and elementary school teachers indicates excellent employment prospects in this field for the next few years at least. Expanded enrollments, brought about by the high birth rates of the early 1940's and an unprecedented migration to California during and since the war, have necessitated considerable expansion in the teaching staff. The increase in enrollments is expected to continue and, according to a recent study,[1] will require 2,180 additional elementary teachers (including kindergarten) in 1949–50. Moreover, many new teachers are needed annually to replace those who die, retire, or otherwise leave the profession each year; the same study estimated the replacement need for 1949–50 at 4,550. In contrast, the study indicated that only about 1,635 students would complete elementary-teacher-training courses in California institutions in 1949, as compared with 1,092 in 1948 and 1,507 in 1941. Even though many additional teachers will come to California from other States (a total of over 4,000 newly employed teachers in 1948–49 were from outside the State), it is evident that the total supply for 1949–50 will be far from adequate to meet the demand.

Presumably, the deficit will have to be made up, as in the past few years, by employing emergency teachers. According to the study already cited, 13,000 such teachers were employed in October 1948, and it was not known how many were in process of preparing themselves to meet regular credential requirements or how many ever intend to meet the regular standards. If, eventually, many emergency teachers must be replaced, this will mean a large additional need for new teachers.

Enrollments at the elementary level (grades K to 8) are expected to increase each year through 1957–58, when they may be some 865,000 higher than in 1948–49. On the basis of one teacher for each 30 added students, the teaching staff would have to be expanded by approximately 29,000, or by an average of about 3,200 per year over the 9-year period. The peak demand for elementary teachers will probably occur about 1954, when as many as 5,000 new teachers may be needed in one year to handle the expansion in enrollments. Furthermore, if the attrition rate remains as high as the estimated 1948–49 figure of about 15 percent, more than 9,000 replacements would be needed annually during the latter years of the 1950 decade.

Competition for jobs is anticipated in some high school teaching fields in 1949–50. Secondary school enrollments may increase moderately in 1949–50 and 1950–51, requiring a few new teaching positions in certain localities, but the chief need for new teachers will be as replacements for those who leave teaching. In 1948–49, such replacements totaled around 1,850,[2] or nearly 10 percent of the secondary teaching staff. It is likely that about the same number will also be needed in 1949–50. The supply of secondary teachers is partially indicated by the 2,792 students expected to graduate from California teacher-training institutions in 1949—94 percent more than in 1948. While many of these graduates may not enter the teaching profession, large numbers of teachers from other States will be seeking secondary school positions in California. It appears that, in 1949–50, California will have an oversupply of regularly credentialed teachers in the usual academic teaching fields, while at the same time experiencing a continued shortage in certain specialized areas, such as industrial arts, homemaking, commerce, physical science, and agriculture.

Rapid expansion in high school staffs is foreseen after 1951. Beginning about that time, enrollments in the secondary schools will increase considerably each year; by 1959–60, they may be approximately 345,000 higher than in 1948–49. These increased enrollments would require nearly 14,000 additional teaching positions if a teacher is provided for each 25 added enrollments. The greatest increase in enrollments will probably occur in 1957–58 and 1958–59, requiring about 2,500 additional teachers per year. The expanded staff may require about 3,000 replacements annually during the late 1950's if the attrition rate remains as high as the 1948–49 rate of 10 percent.

The above estimates of enrollments, upon which the teacher needs are based, take into consideration not only the record number of births in the State in the 1940 decade and the large number of people who have migrated to California from other States, but also the fact that migration to California is expected to continue throughout the 1950 decade.

Earnings

The median annual salary for full-time elementary school teachers was $3,291 in 1948–49; one-fourth of the teachers received less than $2,971, and one fourth received more than $3,799. The median for all high school teachers was $4,051; with one-fourth receiving less than $3,525, and one-fourth receiving more than $4,646. The State-wide minimum for all teachers was $2,400.

Classroom teachers in Los Angeles and San Francisco had average salaries of $4,294 and $4,075, respectively, in 1948–49. These cities ranked fourth and sixth among the 20 largest cities with respect to average salaries paid.

There are considerable differences in salary levels among the various school districts in the State. The minimum and maximum annual salaries for teachers with a bachelor's degree, or holding the general elementary credential, were as follows in several school districts in 1948–49:

School district	Annual salary	
	Minimum	Maximum
Del Norte County [a]	$2,620	$3,020
Fresno County [a]	2,700	3,600
Inyo County [a]	3,000	3,800
Kern County [a]	3,000	4,000
Kings County [a]	2,600	3,500
Merced County [a]	2,680	3,544
San Bernardino County [a]	2,650	3,750
Siskiyou County [a]	2,700	4,020
Sonoma County [a]	2,900	4,220
Trinity County [a]	2,600	3,100
Los Angeles City Schools	2,830	4,510
San Francisco Unified School District	2,700	4,800
Oakland Public Schools	2,940	4,260
San Diego Unified Schools	2,900	4,200
Long Beach Unified Schools	2,830	4,780
Pasadena City Schools	2,700	4,300
Richmond Schools	3,050	4,850
Sacramento City Schools	2,760	4,320
City of Fresno	2,700	3,900
Glendale Unified School District	2,825	4,650
San Jose Unified School District	3,000	4,090
Berkeley Public Schools	2,600	4,100
Burbank Unified School District	2,665	4,375
Vallejo City Unified School District	2,700	3,618
Santa Monica City Schools	2,600	4,400

[a] County-wide schedules.

[1] Teacher Supply and Demand, by James C. Stone and Aubrey A. Douglass. In *California Schools*, April 1949, p. 89.

[2] Ibid. The figure includes a small number of replacements in junior colleges.

COLORADO

Number of Teachers and Enrollments

About 9,150 classroom teachers, principals and supervisors were employed in 1948–49 in the public schools of Colorado, to teach approximately 200,000 pupils. About 75 percent of the pupils and 70 percent of the teachers were in elementary schools. The city of Denver employed about 1,600 classroom teachers.

Certification Requirements

Minimum educational requirement for an elementary certificate is 90 semester hours credit from an accredited college. For a high school certificate, one must have a bachelor's degree. For each type of certificate, 20 semester hours in professional education courses, including 4 hours in practice teaching, are required.

Emergency certificates are issued to certain applicants who do not meet the regular certification requirements if requested by the school board of the employing district. In the school year 1949–50, the educational requirement for an applicant who has never held such a certificate will be 90 quarter hours credit from an accredited institution. In case of extreme need, an applicant with 12 quarter hours of college credit earned since January 1, 1948, may obtain a certificate. An applicant who has previously held an emergency certificate must have earned 12 quarter hours of college credit. These hours must be in professional education if the applicant has a college degree but lacks the credits in education required for a regular certificate.

Outlook

The acute shortage of elementary teachers which has existed since the war is expected to continue in 1949–50. This shortage is especially acute in rural schools. The estimated number of trainees from Colorado colleges who were expected to qualify for the standard certificate in 1949 was only 415. Even if all these trainees should enter teaching in Colorado they would not be numerous enough to fill the vacancies created by turn-over and supply the additional teachers needed because of increasing enrollments in the lower grades. In addition, teachers are needed to replace many who were employed on emergency certificates in 1948–49; the bulk of the 1,800 emergency certificates issued in that year were held by elementary teachers. However, some of the emergency teachers will gradually complete the requirements for regular certificates, thus increasing the supply of fully qualified personnel.

The number of new teachers needed annually will increase until about 1953–54. In that year about 800 may have to be recruited, assuming a ratio of 30 pupils per teacher and a turn-over rate of only 7 percent. After that, the demand for teachers will remain at a high level, since elementary enrollments will continue to increase—though more gradually—until about 1957, when approximately 50,000 more pupils may be enrolled than in 1948–49.

The shortage of high school teachers will probably be ended in most subject fields in 1949–50. The estimated supply of graduates from teacher-training institutions in 1949 was about 740; this should be more than enough to provide replacements for emergency teachers and those dying, retiring, or leaving the profession for other reasons. An oversupply of teachers is expected in such fields as social science, English, and boys' physical education. However, shortages of teachers in home economics, agriculture, and certain other subjects may continue through 1949–50.

Since high school enrollments will probably decline slowly until about 1952, the demand for teachers will be limited largely to normal turn-over after those not teaching on regular certificates are replaced. If graduations from teacher-training institutions continue high, the competition for high school positions will probably become increasingly keen.

In the long run, employment opportunities for high school teachers will increase. From 1952 to 1960, enrollments are expected to increase by about 11,000 making it necessary to form extra classes. If one teacher is provided for each 25 students, nearly 450 additional teachers will be required over the period; greater numbers of teachers will be needed as replacements. However, even in the year of peak hiring, about 1957, the total demand will probably not exceed the number trained in 1949.

Earnings

The average salary of classroom teachers for 1948–49 was estimated at $2,480. The basic salary schedules in the largest cities were as follows:

Educational preparation	Annual salary		
	Minimum	Increments	Maximum
DENVER			
Less than 2 years	$2,040	7 @ $100 1 @ 10	$2,750
2 years	2,040	8 @ 120 1 @ 20	3,020
3 years	2,040	9 @ 120 1 @ 50	3,170
4 years, without bachelor's degree	2,040	11 @ 120 1 @ 60	3,420
Bachelor's degree	2,400	9 @ 150 1 @ 50	3,800
Master's degree	2,400	10 @ 150 1 @ 100	4,000
COLORADO SPRINGS			
2 years	(a)	$100	$2,820
3 years	(a)	100	3,030
4 years, without bachelor's degree	(a)	100	3,300
Bachelor's degree	$2,400	12 @ 100	3,600
Master's degree	2,500	11 @ 120 1 @ 80	3,900
PUEBLO			
No degree	2,000	6 @ 100	2,600
Bachelor's degree	2,400	8 @ 100	3,200
Master's degree	2,500	9 @ 100	3,400

(a) Bachelor's degree is required of new applicants; therefore, schedule does not specify minimum salary for teachers without degrees.

CONNECTICUT

Number of Teachers and Enrollments

There were approximately 180,000 pupils and 7,200 teachers in Connecticut's public elementary schools in 1948–49; 2,400 teachers and 60,000 pupils were in the high schools. In addition, slightly over 500 kindergarten teachers were employed to instruct about 26,000 pupils. An unusually large proportion of the public school teachers were in urban schools (almost 75 percent). The cities of Bridgeport, Hartford, and New Haven together employed over 2,000 classroom teachers, 100 principals, and 25 supervisors.

Certification Requirements

Minimum educational requirement for the elementary certificate is graduation from an approved 4-year elementary teacher-training institution; course requirements include 30 semester hours in education. For the kindergarten certificate, one must be a graduate of a 4-year normal course or a 4-year course at a kindergarten-preparation institution and have had 90 clock hours of practice teaching.

The educational prerequisite for the secondary certificate, needed for teaching in junior or senior high school, is graduation from a 4-year secondary teacher-preparation curriculum at an approved college or university. The curriculum must include 18 semester hours in education—6 of them in practice teaching. In addition, specified numbers of hours must be completed in the subject to be taught; the minimum for most teaching fields is 15 hours. There is a trend in many communities toward requiring more preparation; the State Department of Education recommends that persons planning to teach in high schools should complete 5 years of college work.

Outlook

The shortage of qualified elementary teachers is expected to continue during the next few years at least. A survey made by the State Department of Education revealed that about 620 new teachers would be needed in the 1949–50 school year to take care of increased enrollments, and that about 360 additional elementary teachers would be needed as replacements for those leaving the profession. Although a considerable number of teachers had been obtained from other States, as of June 15, 1949, about 200 vacancies in elementary schools still remained to be filled. Monthly lists of vacancies are available from the State Department of Education, Hartford, Connecticut, or from the local offices of the Connecticut State Employment Service.

The annual need for new teachers will continue at a high level. The State Department of Education has made detailed estimates of the number of teachers that will be needed each year until 1960. The number of births in a given year was related to the number of pupils enrolled in kindergarten 5 years later, and the persistence of enrollments from grade to grade was determined. The resulting enrollment figures were then translated into teachers needed on a basis of 25 pupils

per teacher. The number of additional teachers needed to replace those who retire or withdraw from the profession for other reasons was then calculated on the assumption of 5 percent annual attrition. The total number of new teachers estimated to be needed are as follows:[3]

Year	Elementary (grades 1–8)	Secondary (grades 9–12)
1949–50	980	30
1950–51	780	85
1951–52	780	125
1952–53	1,050	165
1953–54	1,200	165
1954–55	1,105	170
1955–56	925	300
1956–57	600	550
1957–58	475	560
1958–59	615	340
1959–60	620	210
1960–61	370	340

The teachers colleges in Connecticut are too small, at present, to accommodate the number of students who would have to be trained to meet the demand for teachers. It was estimated that only about 230 students would complete preparation for elementary teaching in 1949. This figure compares with 186 in 1948, 160 in 1945, and 220 in 1941. To meet the teacher-shortage crisis, the State Board of Education has worked out a 10-year plan for expansion of training facilities in the teachers colleges. In the meantime, an emergency training program has been set up at the four State teachers colleges to prepare high school teachers and other college graduates for elementary teaching. Connecticut will probably also continue to attract elementary teachers from neighboring States because of its relatively high salary schedules.

[3] Ross, Maurice J., "How Many Teachers Will a State Need," *The American School Board Journal*, February 1949, p. 15.

There will no doubt be a surplus of high school teachers during the next few years. As is indicated in the foregoing table, the State Department of Education estimates that only 30 new teachers will be needed at this level in 1949–50. However, about 340 students were expected to complete college courses preparing them for high school teaching in 1949. This compares with about 230 in 1948, 135 in 1945, and 215 in 1941.

While current needs are small, the high schools will require an increasing number of new teachers each year, especially after 1954 when enrollments will be increased by the high birth rates of the 1940 decade. It is expected that about 560 new high school teachers will be needed in 1957–58.

Earnings

A survey made by the State Department of Education revealed that during the 1948–49 school year the average salary of elementary teachers was approximately $3,160. This represented an increase of about $265 over the previous year. About 15 percent of the elementary teachers earned $3,750 or more. Although most school districts have a single-salary schedule, senior high school teachers averaged about $500 more than elementary teachers; this is owing to the fact that secondary teachers tend to have more experience and preparation than those in elementary positions. The $3,669 averaged by senior high school teachers in 1948–49 was a $250 increase over the previous year. Junior high school teachers (mostly employed in large cities) averaged about $3,750, an increase of about $400 over 1947–48.

The basic salary schedules in selected cities in 1948–49 as compiled by the Connecticut Education Association, are shown below:

City	Four years' training			Five years' training			Amount of annual increments
	Minimum salary	Maximum salary	Number of increments	Minimum salary	Maximum salary	Number of increments	
Bridgeport [a]	$2,100	$3,400	14	$2,200	[b] $3,700	19	$100
Hartford [c]	2,500	4,500	21	2,580	4,725	22	75, 100, 125
New Haven [d]	2,200	4,500	24	2,500	4,500	21	100, 200
Waterbury	2,400	4,000	16	2,600	4,200	16	100

[a] Effective April 1, 1949, new schedule with 4-year maximum, $4,000; M. A. maximum $4,500.
[b] With master's degree $3,900.
[c] Figures include $260 cost-of-living adjustment for 1948–49.
[d] Effective July 1, 1949, new schedule with 4 year maximum, $4,500; M. A. $4,800; Ph. D. $5,000.

DELAWARE

Number of Teachers and Enrollments

About 1,800 classroom teachers, principals, and supervisors were employed in 1948–49 in the public schools of Delaware to teach approximately 44,500 pupils. About 250 of the teachers were Negroes. Approximately 50 percent of the teachers and 60 percent of the pupils were in the elementary schools.

Of the 1,277 persons on the educational staff outside of Wilmington as of December 1948, 27 percent were men.[4] Most of these 1,277 people had many years of teaching experience: 32 percent had 20 or more years of experience; 49 percent, between 5 and 20 years; and only 19 percent, less than 5 years. The group's educational preparation was as follows: 15 percent had the master's degree; 56 percent, the bachelor's degree; 29 percent had no degree but usually had two or more years of normal school training.

Certification and Other Requirements

For the collegiate certificate in elementary or kindergarten education it is necessary to have completed the work for a bachelor's degree. The training must include 30 semester hours of either elementary or kindergarten education courses (depending on which type of certificate is desired).

To obtain a high school certificate, it is necessary to be a graduate of a standard college or university and to have earned 18 semester hours credit in the academic field for which the certificate is issued and 18 hours in education, 6 of which must be high school practice teaching.

Because of the shortage of job applicants who qualify for standard certificates, emergency certificates are issued to certain people who do not meet the regular requirements.

Outlook

The demand for elementary teachers will probably exceed the supply available for 1949–50. It has been estimated that 90 replacements were needed for teachers who did not return to elementary schools in 1948–49; about the same number will probably have to be replaced in 1949–50. Additional instructors will be needed to handle the expanding enrollments in the lower grades. Qualified teachers will also be needed to take the places of some of the emergency teachers (about 115 emergency permits were issued in 1948–49). One source of supply is the estimated 32 Delaware college students who were expected to complete requirements for elementary certificates in 1949. Other recruits will probably also be available, as in 1948–49, from nearby States. However, it is doubtful that enough qualified teachers can be obtained from these sources to meet all needs. Shortages will probably be worse in the white than in the Negro schools. The replacement rate is lower for Negro than for white teachers, and there were relatively few emergency teachers in the Negro schools in 1948–49. Furthermore, the supply of teachers available from Negro institutions in Delaware will be much larger in proportion to the total number employed than the supply from white institutions.

Elementary enrollments (grades 1 to 8) and teaching positions will continue to rise until about 1956–57, when there may be approximately 15,000 more children in school than in 1948–49. If the pupil-teacher ratio were 30 to 1, then this source of employment alone would furnish jobs for 500 additional teachers during the 8-year interval. As the size of the teaching staff grows, the number of teachers dropping out will probably tend to increase also; if the replacement rate should continue to be 10 percent, as in 1948–49, then about 150 vacancies would probably have to be filled yearly during the late 1950's.

The supply of high school teachers may be sufficient in 1949–50 to provide all except certain specialized personnel. Seventy-seven Delaware college students (42 white and 35 Negro) were expected to complete courses of study qualifying them for high school teaching in 1949. This group should supply enough applicants to meet normal replacement needs—which, in 1948–49 amounted to a demand for only about 59 teachers in the entire State. The small replacement demand will be almost the only source of positions for new high school teachers in the near future, since enrollments are declining and few if any emergency teachers will need to be replaced; only 22 emergency high school certificates were issued in 1948–49. There may be strong competition among applicants for positions in certain fields

[4] *Educational Personnel Data of the State Board Units and Special Districts of Delaware*, Bulletin No. 203–49, Department of Public Instruction, Dover, Delaware.

such as men's physical education in the white schools and social studies in the Negro schools.

After 1951, employment in the high schools will probably rise slowly. About that year, enrollments in grades 9 to 12 are expected to begin an upward trend which will continue for the remainder of the decade. By 1959–60, approximately 6,700 more youths may be enrolled in high school than 9 years earlier. Assuming a ratio of 25 students per teacher, these increased enrollments would call for the employment of almost 270 additional teachers. Furthermore, if the annual replacement rate should continue to be 7 percent, as in 1948–49, then the number of vacancies to be filled would be likely to rise to around 75 per year by the end of the 1950's.

Earnings

The new salary schedule for classroom teachers which will be in effect in all of Delaware outside of Wilmington in 1949–50 is as follows:

Educational preparation	Annual salary		
	Minimum	Increments	Maximum
No degree	$2,000	10 @ $160	$3,600
Bachelor's degree	2,400	10 @ 160	4,000
Master's degree	2,600	10 @ 160	4,200
Doctor's degree	3,000	10 @ 160	4,600

In previous years, Wilmington has paid somewhat higher salaries than those provided by the State schedule.

DISTRICT OF COLUMBIA

Number of Teachers and Enrollments

District of Columbia public schools had an enrollment of over 91,000 pupils in 1948–49, of whom approximately 48,000 were white and 43,000 Negro. About 2,100 white and 1,500 Negro teachers, principals, and supervisors were employed to instruct these pupils. About half of all the teachers and three-fifths of the students were in the elementary schools (kindergarten through grade 6).

Certification Requirements

Minimum educational requirement for an elementary teaching license (for kindergarten through grade 6) is a bachelor's degree from an accredited college. The applicant must have earned 40 semester hour credits in professional courses representing a definite program of preparation for teaching in the elementary schools; the training must include practice teaching in the elementary schools and other specified subjects. For a junior high school license to teach academic, commercial, and scientific subjects it is necessary to have a bachelor's degree with 24 semester hour credits in approved professional courses—including practice teaching in junior high schools and other specified courses oriented to teaching at that level and majors in two subjects. For a senior high school certificate to teach academic, commercial, and scientific subjects, one must have a master's degree, with a major in the subject to be taught, and 24 semester hour credits in specified professional courses including practice teaching in secondary schools. For each of these licenses, 2 years' successful teaching experience at the appropriate level may be substituted for practice teaching.

Special requirements are made for certificates to teach special subjects such as music, industrial arts, and physical education in either elementary or secondary schools.

Besides meeting the educational requirements, applicants must pass oral, written, and physical examinations and, for some kinds of licenses, a practical examination or demonstration. Those who pass the examinations are ranked according to their score, and appointments are made from the top of the list. After a year's probation, the appointment becomes permanent.

Temporary teachers who do not qualify for licenses are appointed when lists are exhausted. In making such appointments, the teachers chosen are those who come closest to fulfilling the requirements.

Outlook

The elementary schools of the District of Columbia are expecting a shortage of white teachers and a surplus of Negro teachers in 1949–50. According to the Superintendent of Schools, the white schools will need replacements for at least 23 members of the permanent staff who do not expect to return to teaching in 1949–50. A few additional vacancies may be created by resignations during the 1949–50 school year. Efforts will also be made to find replacements for about 60 of the 235 white temporary teachers who were employed in 1948–49. While enrollments will probably increase above the 1948–49 level, appropriations are not sufficient to permit the employment of additional teachers in 1949–50. In July 1949, the available supply of qualified white teachers consisted of the 45 on the eligible list who had passed the examinations required for a license. New temporary appointments will be made to those positions which cannot be filled from the eligible list. According to the Superintendent of Schools, there will be about the same number of temporary white teachers as were employed in 1948–49. However, as a whole, these teachers will be better qualified than those who have taught in recent years.

In the Negro elementary schools, on the other hand, the supply will be more than adequate. In July 1949, there were 126 names on the eligible list—more than are likely to be needed in 1949–50. Only 16 Negro teachers left the Negro elementary schools between July 1, 1948, and July 1, 1949. Most of them were replaced during the school year. The number of withdrawals from July 1, 1949, to July 1, 1950, will probably be about the same. An increase in appropriations was made to furnish jobs for 16 additional teachers, who will be used chiefly to handle increased enrollments. Only 18 Negroes were employed on a temporary basis in 1948–49, chiefly to replace permanent teachers on leave or to fill vacancies in specialized fields where no qualified teacher could be found; the very few temporary appointments expected in 1949–50 will be made for similar reasons.

Employment of elementary teachers will probably rise gradually, along with enrollments, until about 1957–58. In that year, there are likely to be over 25,000 more children in grades 1 to 6 than there were 9 years before, unless out-migration increases. Assuming appropriations are passed to provide one additional teacher for every 36 pupils, more than 700 additional positions would be created during this period. Drop-outs are likely to show a slight increase with the expansion in the teaching staff. If the replacement rate should continue to be 2 percent, as in 1948–49, almost 50 teachers would be needed each year to fill vacancies during the late 1950's.

In white junior and senior high schools and vocational schools, the supply and demand picture for 1949–50 differs from one subject field to another. Fifty teachers left the permanent staff during the year ending July 1, 1949. The number doing so in 1949–50 is expected to be about the same. Some vacancies may not be filled, on account of the decline in high school enrollments. Eighty white teachers were on the eligible lists for the various junior and senior high school fields and vocational courses in July 1949; this supply should be sufficient, in most instances, to furnish needed replacements for permanent staff members and to replace some of the 141 white teachers employed on a temporary basis in 1948–49. Shortages are expected to continue, at least in 1949–50, in certain fields such as mathematics, physics, general science, and some shop subjects, but surpluses are anticipated in such fields as social studies, English, and history.

An oversupply of Negro secondary teachers is expected in most subject fields in 1949–50. In July 1949, 106 were on the eligible lists for junior and senior high schools and vocational schools. Only 21 vacancies existed at that time; a few more may arise during the 1949–50 school year. The vocational schools will probably not be able to obtain a sufficient number of fully qualified teachers to fill all positions. In the academic schools, there is likely to be a surplus of eligibles, especially for positions in the fields of foreign languages, history, and social studies.

The number of secondary teachers needed annually will continue to be very small in the next few years, while enrollments are declining (taking all secondary schools together). Beginning about 1951–52, however, high school enrollments are expected to increase; by 1959–60, the number of students in grades 7 to 12 may be approximately 15,000 higher than 8 years previously. In the late 1950's the staff additions needed to take care of expanding enrollments will probably become a much larger source of employment than the replacement of drop-outs. If an extra teacher is employed for every 25 additional high school students, the demand arising from this source, together with replacement needs, may mean a need for over 200 teachers in a single year at the end of the decade.

Earnings

The average salary for Washington classroom teachers for 1948–49 has been estimated at $3,486, not including the $330 increase granted retroactively to June 1948.

A single-salary schedule applies to all teachers from kindergarten through the teachers colleges. For 1949–50, the basic schedule including the $330 increase is as follows:

College training	Annual salary		
	Minimum	Increments	Maximum
Bachelor's degree	$2,830	15 @ $100	$4,330
Master's degree	3,330	15 @ 100	4,830

Experienced teachers entering District schools are granted salary credit for years of previous experience up to a maximum of 5 years.

FLORIDA

Number of Teachers and Enrollments

About 16,900 teachers, principals, and supervisors were employed in the Florida public school system in 1948–49; 9,500 of them taught 296,000 pupils in elementary schools, and 7,400 were in high schools where there were about 173,000 students. Over a fourth of all elementary pupils, a fifth of all high school students, and similar proportions of classroom teachers were Negroes.

Certification Requirements

Florida issues two major kinds of regular teaching certificates: a graduate certificate to those completing 4 years of college, and a provisional undergraduate certificate to those with at least 2 years of college. Emergency certificates are given to persons not meeting either of these requirements if a sufficient number of fully qualified applicants is not available.

For a graduate certificate in elementary or secondary teaching, the applicant's college training must include at least 45 semester hours of general academic work and 14 semester hours of professional education courses, plus 6 hours of practice teaching. In lieu of practice teaching, completion of an approved internship program or 3 years' teaching experience and 6 semester hours of other prescribed education courses may be accepted. The specified types of education courses differ for the elementary and high school certificates. In addition, candidates for high school certificates must have completed specified numbers of hours in their chosen subject fields; the minimum semester hours required range from 12 in some fields to 36 in social studies, English, and science.

The 2 years of college work needed for a provisional undergraduate certificate for elementary or junior high school teaching must include 30 semester hours of general academic work. In addition, elementary teachers must have had at least 12 hours in professional education courses; junior high school teachers, 12 hours; both must have completed 3 hours in practice teaching or one of the alternatives in practical experience acceptable for graduate certificates.

At least 9 semester hours of all prospective teachers academic credit must have been completed within the past 8 years.

Outlook

The need for elementary teachers (grades 1 to 8) in Florida is considerable but by no means as acute as in many other States. High wartime birth rates and in-migration are causing school enrollments to grow rapidly; the proportionate increase is greater for white than Negro children. In 1949–50, a greater shortage of teachers may develop than existed in the previous year, mainly as a result of the great expected increase in enrollments. Approximately 750 teachers will also be needed (at an 8 percent attrition rate) to replace those dying, retiring, or otherwise leaving the profession. It would also be desirable to replace some of the teachers holding emergency certificates (400 held such certificates in 1948–49) with fully qualified personnel. However, the supply of such teachers is likely to be less in 1949–50 than in the previous year, since only about 560 students were expected to complete their training in Florida institutions in 1949 as compared to 670 in 1948. Many teachers are being attracted from neighboring States where wages and working conditions are not as good as in Florida schools, but, with shortages everywhere, it is doubtful if all openings in the next few years can be filled with qualified teachers.

Employment of elementary teachers will probably rise, along with enrollments, until about 1956–57, when there may be about 200,000 more students in grades 1 to 8 than in 1948–49. The enrollment increase is estimated at approximately 25,000 pupils per year until about 1952; then it is likely to take a sharp upturn until about 1954 and to taper off in the following 2 or 3 years. To care for this growing school population, annual needs for teachers (based on a pupil-teacher ratio of 30 to 1) will increase from about 800 to about 1,200 at the peak enrollment period and then drop rapidly. Replacement needs, on the other hand, will probably tend to increase until the latter part of the decade, as the teaching staff grows; if the replacement rate should remain at 8 percent, they would probably amount to about 900 per year in the early 1950's and increase to about 1,300 per year during the last years of the decade.

The proportion of Negro elementary teachers needed in the next few years will probably remain just over one-fourth. However, long-run trends indicate that the white population in Florida is increasing at a slightly faster rate than the Negro population, so that by the end of the 1950's the proportion of Negroes on the elementary teaching staff may drop slightly.

At the high school level, there are likely to be more teachers seeking jobs than there are openings in the next few years. Enrollments in grades 9 to 12 have been dropping somewhat and will probably continue to do so until about 1952. The need for new high school teachers will therefore be limited, in general, to replacements. In 1948–49, replacement needs amounted to more than 700, or 10 percent of the staff. The supply of high school teachers is more than adequate in most subject fields. In 1949, the estimated number of people expected to complete high school teacher-training courses in the State was about 1,270, as compared with 820 in 1948 and 360 in 1941. An oversupply was already apparent in 1948 in subject fields such as social science and men's physical education. Home economics and industrial arts teachers may continue in short supply for the next few years.

Starting about 1952, high school enrollments are expected to show an upward trend into the 1960's, and by 1959–60 will probably be nearly 70,000 above the 1951 low point. On the basis of a 25 to 1 pupil-teacher ratio, 2,800 teachers would be needed to take care of the additional students. The replacement rate may decline somewhat; however, assuming continuation of the 1948–49 rate of 10 percent, the number of teachers needed to fill vacancies would average about 700 per year in the early part of the decade and may be almost 1,000 by 1959–60.

The proportion of Negro high school teachers, presently about a fifth of the total teaching staff at this level, may increase in the long run. Present enrollments show a much larger proportion of Negro children attending high schools than before the war. This trend is expected to continue as transportation facilities are improved for students in the rural areas and greater emphasis is put on vocational training in Negro high schools.

In order to stimulate recruitment into the teaching profession, the State scholarship program was expanded in 1947 to provide about 260 new scholarships annually to qualified Florida residents interested in taking teacher-training courses in any institution in the State (about 35 of the scholarships give the student an option of preparing either for teaching or for municipal or State government work). Half the scholarships amount to $200 per year, the rest, $400; most of them are for 4 years. In all cases the student must promise that after graduation he will teach 1 year for every year he attended college on a State scholarship, or return the money to the State at 5 percent interest.

Earnings

The average annual salary in 1948–49 for all classroom teachers was $2,694. Elementary teachers averaged $2,585; those in high schools, $2,835. The year before, when the average for all classroom teachers and other instructional staff (excluding supervisors) was about $2,629, white teachers averaged $2,721; Negroes, $2,163. In Florida, teachers' salaries are on a county-wide basis. The amounts received by individual teachers have an extremely wide range depending on the county, amount of educational preparation, length of experience, and also, in some counties, the rating received under the established rating system for the particular county.

GEORGIA

Number of Teachers and Enrollments

In 1948–49, about 23,000 classroom teachers, supervisors, and principals—one-third of whom were Negroes—were employed to teach 700,000 pupils in the public schools. Nearly 7,000 of the teachers and 160,000 pupils were in the secondary

schools. Less than 10 percent of all the teachers were in one-room schools.

Certification Requirements

The minimum State educational requirement for standard elementary certificates is 2 years of college, with 6 courses or 18 semester hours of professional education including 3 hours of practice teaching. For the professional certificate for junior and senior high school teaching, a bachelor's degree with 18 semester hours of professional education, including 3 semester hours of student teaching and observation, is required. Subject matter requirements for high school certificates vary with the field of specialization; they range from 12 semester hours in physical education and the teacher-librarian field to 45 semester hours in industrial and trade arts. Provisional and other types of certificates are issued to applicants with somewhat lower qualifications. Certificates based on less than 2 years of college are designated as emergency teaching permits and are valid for 1 year only. The minimum age for teachers is 18 years.

Outlook

Opportunities for employment of elementary teachers in this State will be excellent in the immediate future. There was an acute shortage of teachers at this level in 1948–49, which necessitated issuance of about 2,000 emergency certificates. Even so, there were still about a hundred vacancies in the elementary schools. The shortage of teachers is expected to continue for the next few years, since enrollments are increasing rapidly owing to the high birth rates of the early 1940's. Enrollments and attendance are also being increased by better enforcement of the State's compulsory attendance law; visiting teachers increased daily attendance by 33,000 in the past 2 years. In addition, experience indicates that approximately 5,000 people leave elementary and high school teaching in the State each year and have to be replaced; the large majority of these vacancies occur in elementary schools. Additional qualified personnel are needed to replace many of the people employed on emergency certificates and to enable a reduction of the pupil load per teacher. In contrast, only about 500 persons completed elementary-teacher education programs in Georgia's teacher-training institutions in 1949; over half were Negroes. It is obvious that shortages in the white elementary schools will not be relieved to any great extent in the near future. The supply of Negro teachers is more adequate but is expected to be still somewhat short of the demand in 1949–50.

Elementary teachers are likely to continue in great demand throughout the 1950 decade. Peak enrollments, occurring about 1956–57, will probably be nearly 150,000 greater than in 1948–49. At a ratio of 30 pupils per teacher, this would mean a need for 5,000 additional positions during the 8-year period. The number of teachers needed as replacements will, of course, depend upon the attrition rate, which will probably decrease somewhat. If it should be as low as 10 percent, the number needed annually would be over 2,000 in the late 1950's.

High school teachers are also expected to be in strong demand, though enrollments in grades 9 to 12 will remain at about the 1948–49 level for the next year or two. There were some 800 teachers employed on emergency certificates and about 50 vacancies in 1948–49. The need for special-subject teachers for physical sciences, mathematics, and library science is especially acute. The recent addition of the twelfth grade in 95 percent of the school systems requires more teachers. Replacement rates will probably remain high during the next few years at least. Altogether, many more new high school teachers will be needed in 1949–50 than the training institutions in the State are providing. According to a survey made by the Regents of the University System of Georgia, only about 750 graduates of 1948–49 plan to teach at the secondary level; many of these teachers may go to other States. Negro teachers may soon meet considerable competition for jobs, as the supply is approaching the demand.

Beginning about 1951–52, secondary school enrollments and teaching positions will have an upward trend. By 1960 the number of students may be nearly 62,000 higher than in 1948–49. This expansion in enrollment would require about 2,500 additional teaching positions, on the basis of one teacher for each 25 pupils. While the replacement rate is expected to decrease somewhat, the expanded staff will tend to increase the numerical turn-over; if the attrition rate should be 10 percent, around 950 new teachers would be needed as replacements each year during the latter 1950's.

Earnings

The average salary of Georgia's classroom teachers was about $1,800 in 1948–49; elementary teachers averaged $1,600 and secondary teachers, $2,200.

The minimum State salary schedule in effect for the 1949–50 school year is as follows:

Educational preparation and type of certificate	Monthly salary (12 months)	
	White	Colored
Certificate based on less than 1 year of college	$94	$73
General elementary certificate based on:		
1 year of college	102	79
1 year of college plus 49 or more months of experience	112	86
Elementary or high school—Provisional certificate based on:		
2 years of college	124	101
3 years of college	134	109
4 years of college	145	132
5 years of college	165	154
Professional certificates based on:		
2 years of college	134	109
3 years of college	145	118
4 years of college	155	141
5 years of college	173	162
Life professional certificate [a] based on:		
2 years of college	145	118
3 years of college	155	126
4 years of college	165	150
5 years of college	182	170

[a] Life certificates will not be issued after July 1, 1950.

Atlanta had a single-salary schedule in effect in 1948–49 to which cost-of-living adjustment of 40 percent was added. The first-year salary was within the range of $840 to $1,440. Assignment to a specific "track," made at the beginning of the second year, is based on teaching efficiency and related factors. Maximum salaries for the four tracks for teachers without the master's degree were $1,560, $1,920, $2,280, and $2,316; for those with the master's degree, $1,980, $2,340, $2,700, and $2,772.

The single-salary schedule for Bibb County, including Macon, provided minimum salaries based on the State schedule and maximum salaries of $3,250, $4,000 and $5,000 depending on the teacher's preparation.

Columbus had a position-preparation schedule in effect in 1948–49, which paid a minimum of $1,350 and a maximum of $2,050 to kindergarten teachers. Elementary and secondary teachers had minimum salaries of $1,700, $2,000, or $2,200 and maximum salaries of $2,400, $2,700, and $3,650, depending on preparation.

IDAHO

Number of Teachers and Enrollments

About 4,600 classroom teachers, principals, and supervisors were employed in 1948–49 in the public schools of Idaho to handle approximately 120,000 pupils. About 74 percent of the pupils and 68 percent of the teachers were in elementary schools. One-room school districts have been decreasing rapidly; and only 165 teachers were in one-room schools in 1948–49.

Certification Requirements

In 1947, the Idaho State Legislature passed a law providing for progressively rising standards of academic credit to qualify for a standard elementary teaching certificate. Until September 1 of the following years, the requirements will be as follows:

1949—Completion of 64 semester hours.
1950—Completion of 75 semester hours.
1951—Completion of 85 semester hours.
1952—Completion of 96 semester hours.
1953—Completion of 107 semester hours.
1954—Completion of 117 semester hours.

Eighteen hours of professional education courses, six of which are practice teaching, must be included. Certain specified general courses are also required.

To qualify for a high school certificate, it is necessary to have a bachelor's degree and 20 hours of professional education courses, 3 of which must be high school practice teaching. A further requirement is 15 semester hours in each of two teaching fields.

Emergency certificates are issued on request of the local school superintendent to certain applicants who do not have all the qualifications needed for a standard certificate. Requirements for an emergency certificate for the year 1949–50 are as follows: for elementary teaching, 32 semester hours of college work or 1 year's teaching experience on a valid certificate; for high school teaching, 64 semester hours of college work. In order to retain an emergency certificate, a teacher who held one in 1948–49 must either have completed 3 semester hours of approved courses within the preceding year or have taken

6 semester hours of approved work in residence at an accredited teacher-training school within the preceding 2 years. The requirement of additional professional training each year probably will be continued as long as emergency permits remain necessary. In-service training classes are being offered in most parts of the State, so that emergency certificate holders can meet this requirement.

Outlook

The elementary teacher shortage which existed in the previous year will probably continue in 1949–50. If as large a proportion of the elementary teaching staff withdraws from Idaho grade schools as did in 1947–48, then about 470 (or 15 percent) will have to be replaced. Additional teachers will be needed to handle increasing enrollments in the lower grades. The supply of fully qualified teachers will probably not be adequate to meet these demands; only 150 teacher-trainees were expected to complete courses of study at Idaho institutions in 1949 qualifying them for regular elementary certificates. The number of teachers recruited from other States will not be large. Only about 50 out-of-State teachers had their certificates endorsed for Idaho elementary schools in 1948–49. In all probability as many substandard teachers will have to be employed in 1949–50 as in the preceding year, when over 1,000 emergency certificates were issued.

The annual need for elementary teachers will remain high throughout the 1950 decade. Enrollments in grades 1 to 8 will probably rise to a peak about 1957–58, when some 29,000 more children may be enrolled than in 1948–49. If one teacher were hired for every 30 children, this would call for the employment of nearly 1,000 additional teachers during the 9-year interval. After 1958, enrollments are expected to drop off slowly, but the expanded teaching force will tend to bring with it an increased number of vacancies owing to death, or other causes. If the withdrawal rate should continue to be 15 percent, then the yearly demand for teachers to fill vacancies would probably rise to about 600 in the late 1950's.

The high school teacher shortage will be substantially reduced in 1949–50 but may not be entirely eliminated. If the proportion of teachers who retire or otherwise leave Idaho schools should be the same as in the previous year, about 175 teachers (12 percent of the teaching staff) would have to be replaced in the fall of 1949. In addition, qualified teachers will be sought to replace some of those who were teaching on emergency certificates in 1948–49 (200 such certificates were issued that year). Most of the supply of new high school teachers will probably come from Idaho institutions, which were expected to graduate about 211 students in this field in 1949. About 100 teachers from outside the State had their certificates endorsed for use in Idaho secondary schools in 1948–49; however, since many States will have an oversupply of secondary teachers, a somewhat larger number may be available from this source in 1949–50. Competition for jobs is likely to develop soon in some subject fields. Shortages are expected to continue longest in rural high schools and in special subjects such as agriculture and industrial arts.

Beginning in 1950, the number of high school students enrolled and, therefore, the number of teachers needed will probably increase, first gradually and later rapidly. By 1959–60, there may be over 10,000 more youths in high school than in 1948–49. Assuming a ratio of 25 pupils per teacher, this would mean staff additions totaling about 400 over the 11-year period. Growth in size of staff will tend to bring about an increase in the number of yearly withdrawals; if the attrition rate continues at approximately 12 percent, the replacements needed may rise to about 220 annually by the late 1950's.

Earnings

The average salary for secondary classroom teachers in 1948–49 was around $2,650; for elementary teachers, about $2,360.

The minimum annual salary schedule provided by State law was as follows:

Educational preparation	Starting salary	Annual increments	Salary with maximum credit for experience
Less than 2 years	$1,200	5 @ $45	$1,425
2 years, but less than 3	1,400	7 @ 45	1,715
3 years, but less than 4	1,500	7 @ 45	1,815
4 years, but less than 5	1,600	10 @ 45	2,050
5 years or more	1,800	10 @ 45	2,250

NOTE.—Most school systems paid more than the legal minimum.

ILLINOIS

Number of Teachers and Enrollments

There were about 32,500 teachers, supervisors, and principals and about 865,000 pupils in the public elementary schools during the school year 1948–49. The public high schools (including junior high schools) employed approximately 13,200 teachers for their 330,000 students. A large portion of the State's school population is concentrated in the city of Chicago. During the 1947–48 school year there were about 300,000 elementary pupils and about 110,000 high school students enrolled in the Chicago public schools.

Certification Requirements

To obtain a regular State teaching certificate, one must have a bachelor's degree from an accredited college with at least 16 semester hours in professional education courses, including 5 semester hours of practice teaching. In addition, candidates for high school teaching certificates must have specified numbers of semester hours in subjects to be taught. A limited elementary school certificate, valid for 4 years, may be issued after successful examination to those who have 60 semester hours credit, including 10 hours in education of which 5 were in practice teaching.

Requirements for regular certificates to teach in Chicago public schools are higher in several respects. All candidates must have had either 2 years of successful teaching experience in the appropriate grade or specified amounts of practice teaching. Those desiring to teach academic subjects in high schools must have at least a master's degree in their major field. In addition to the educational requirements, the Chicago Board of Education has specified that candidates must be citizens of the United States; must be between the ages of 19 and 49; and must pass a physical examination. Certificates are issued only upon passing an examination with special reference to the position desired.

When fully qualified teachers are not available, emergency State certificates are issued to persons with slightly lower qualifications. To obtain a temporary certificate to teach in Chicago elementary schools, one needs a bachelor's degree but only 15 semester hours in professional education courses.

Outlook

A severe shortage of elementary teachers existed in 1948–49 and is expected to continue during the next few years. Illinois education officials estimate that about 12 percent of the State's elementary teachers left the profession during the 1947–48 school year. If attrition continues at this rate, about 4,000 new elementary teachers would be needed annually during the next 2 or 3 years to replace those leaving the profession. Some of the 2,517 elementary teachers issued emergency certificates in 1948–49 will also need to be replaced; emergency certification will end July 1, 1951. In addition, based on a ratio of 30 pupils per teacher, it is estimated that an average of about 700 new teachers per year would be required to handle the 65,000 increase in enrollments expected from 1949–50 to 1951–52. However, in some parts of the State consolidation of school facilities may make it possible to take care of increased enrollments without hiring additional teachers.

The supply of students at Illinois colleges completing courses qualifying them for elementary positions in 1949 has been estimated at only about 825, a small fraction of anticipated demand. This is considerably lower than the 1,666 who completed such preparation in 1941.

The most rapid rise in enrollments and the peak need for teachers is expected to occur from about 1952 to 1956. On the basis of 30 pupils per teacher, an average of approximately 1,500 new teachers would be needed annually to take care of the increase of about 180,000 in enrollments expected during this 4-year period. If the attrition rate should continue to be about 12 percent, between 4,000 and 5,000 new elementary teachers would be needed annually during this period to replace those who leave the profession.

At the high school level, there will probably be an oversupply of teachers in 1949–50 in most subject fields, especially social science and men's physical education. However, additional mathematics, shop, home economics, and music teachers will be needed that year.

There has recently been a considerable increase in the number of persons preparing to enter secondary teaching. About 3,500 students are expected to complete college courses qualifying them for high school positions during 1949, a considerable increase over the figure of 2,576 for 1948, 1,070 for 1945, and 1,830 for 1941. However, it is likely that some of these students do not plan to enter the teaching profession.

The demand for teachers anticipated during the next 5 years is far less than this supply. An average of about 100 new high school teachers would be needed annually to handle the 10,000 increase in enrollment expected during the next 5 years or so, if we assume a pupil-teacher ratio of 25 to 1. Almost 1,000 additional teachers will be needed each year to replace those lost to the profession during this period because of deaths, retirements, or transfers to other fields of work (based on the 1947–48 attrition rate of 7 percent).

The demand for high school teachers will increase most rapidly during the last part of the 1950 decade, as the peak enrollments pass from the elementary grades to the high school. Assuming a ratio of 25 students per teacher, an average of about 900 new teachers would be needed each year to take care of the 70,000 increase in high school enrollment that is expected in the period, 1955–56 to 1957–58. At the same time (based on an attrition rate of 7 percent) about 1,100 new teachers would be needed annually as replacements. High school enrollments are expected to remain at a high level during the rest of the decade and in the early 1960's.

Earnings

The average teaching salary in Illinois during the 1948–49 school year was about $2,250 for elementary teachers and $3,000 for high school teachers. During the 1948–49 school year the average salary in Chicago was $4,104, fifth highest among the Nation's 20 largest cities. During the calendar year 1948, Chicago had the following salary schedule:

Type of position	Annual salary		
	Minimum	Increments	Maximum
Elementary:			
Lower group	$2,200	4 @ $200	$3,000
Upper group	3,200	4 @ 200	4,000
High school:			
Lower group	2,640	4 @ 240	3,600
Upper group	3,840	4 @ 240	4,800

Three requirements must be fulfilled for promotion from lower group to upper group: (1) one year of service at the maximum salary of the lower group; (2) an efficiency rating of satisfactory, excellent, or superior; (3) completion of additional training or written examination. A study of the distribution of salaries paid indicates that the upper group is reached by most teachers who remain in the system.

Salary schedules for two other large cities in Illinois for 1948–49 are as follows:

Amount of college training	Annual salary		
	Minimum	Increments	Maximum
SPRINGFIELD [a]			
2 years	$2,200	15 @ $100	$3,700
3 years	2,300	15 @ 100	3,800
Bachelor's degree	2,800	17 @ 100	4,500
Master's degree	3,000	17 @ 100	4,700
EAST ST. LOUIS			
2 years	2,300	22 @ 50	3,400
Bachelor's degree	2,400	17 @ 70 5 @ 50	3,840
Master's degree	2,540	15 @ 70 9 @ 50	4,040

[a] This schedule was effective January 1, 1949.

INDIANA

Number of Teachers and Enrollments

Indiana's public elementary schools had approximately 13,000 teachers and 470,000 pupils in the school year 1948–49. The public high schools employed 11,400 teachers for about 165,000 students.

Certification Requirements

The minimum requirement for a provisional elementary certificate is graduation from a 4-year college course, with 6 to 8 semester hours of practice teaching and 32 additional semester hours in professional education courses. This certificate is valid for teaching all grades from kindergarten through grade eight, inclusive, and also for teaching the ninth grade in junior high school when the teacher has the required amount of college credit in the appropriate teaching field.

One may obtain a provisional secondary certificate by meeting stringent requirements which include: graduation from an accredited college; 18 semester hours in professional education, of which 5 are in student teaching; and completion of a specified amount of college work in the field to be taught. This certificate entitles the holder to teach the subject or subjects indicated on the certificate in grades 7 through 12 in any secondary school and also in a departmentalized elementary school. A provisional certificate is valid for 5 years and may be renewed for one additional 5-year period only. It may be converted into a permanent elementary or secondary certificate after the holder has had 5 years' experience and has earned a master's degree. When persons meeting all these requirements are not available, emergency permits are issued to persons with slightly lower qualifications.

About 85 percent of the city teachers and about 75 percent of the town teachers employed in 1948–49 were college graduates. However, only about one-fourth of the rural elementary teachers were college graduates. A recent survey disclosed that about 85 percent of Indiana's teachers had secured some additional college training during the last 3 years.

Outlook

The severe shortage of elementary teachers which existed during the 1948–49 school year is expected to continue during the next few years. The Indiana School Study Commission had made a detailed study of the impact of the anticipated increase in enrollments upon the demand for teachers in the State. Their estimates of teacher demand are given in the following table.

Estimated number of new teachers needed to provide for increased enrollments [a]

Year	Elementary (grades 1–8) [b]	Secondary (grades 9–12) [b]
1949–50	463	−55
1950–51	468	−9
1951–52	268	82
1952–53	636	210
1953–54	1,013	152
1954–55	1,004	122
1955–56	883	207
1956–57	676	374
1957–58	628	384
Total	6,039	1,467

[a] Indiana School Study Commission, *Employed School Personnel* (Mimeographed), 1948, p. (G) 17. Derived from estimates of school enrollment (based on the assumption that births would continue at the 1947 rate) reported in a study by M. E. Stapley, "Elementary Teacher Demand in Indiana," in *School and Society*, Vol. 67, No. 1725, January 17, 1948. It should be noted that these estimates are based on the assumption that births would continue at the 1947 rate.

[b] Based on a ratio of one new teacher to each 35 additional pupils enrolled in elementary grades and one to each 25 additional pupils enrolled in high school.

Besides the new teachers needed to handle increased enrollments, many will be required to fill existing vacancies, to replace those who retire or leave the profession for other reasons and to reduce oversized classes. Still other teachers would be needed to replace older teachers and holders of emergency permits. The number of new teachers needed to satisfy these needs has been estimated by the Indiana School Study Commission as follows:[5]

Estimated number of new teachers needed for Indiana schools [a]

	For 10-year period, 1948–49 through 1957–58	
	Elementary	Secondary
To fill present vacancies	114	115
To offset annual losses [b]	9,510	5,590
To replace holders of emergency permits [c]	854	702
To replace present overage teachers [d]	457	268
To reduce present average pupil-teacher ratio	1,962 [e]	(f)
To provide for increased enrollment	6,555	1,263
Total	19,452	7,938

[a] Indiana School Study Commission, *Employed School Personnel* (Mimeographed), 1948, p. (G) 19. This table deals with teaching positions only and excludes administrative and supervisory positions. All estimates are based upon or derived from available records, reports, and studies and are conservative in all instances.

[b] These figures were derived by projecting the average annual number of retirements and withdrawals from the Indiana State Teachers Retirement Fund for the period from January 1, 1945, to September 17, 1948. Division between elementary and secondary was made on same basis as ratio of total elementary to the total secondary teachers in the State.

[c] As reported by superintendents in reply to inquiry of Research Service, Indiana State Teachers Association, spring, 1948.

[d] Estimated number of teachers in service, 1947–48, 66 years of age or older, October 1, 1947, as derived from sampling study of records of the Indiana State Teachers Retirement Fund.

[e] Estimated number of new elementary teachers needed to reduce elementary pupil-teacher ratio in accordance with median proposal of superintendents.

[f] No reduction proposed in average secondary pupil-teacher ratio for the State as a whole. Many individual schools should reduce secondary pupil-teacher ratios from present high figures in those schools.

Altogether, according to these estimates, an average of about 2,000 new elementary teachers per year will be needed during the period from 1948–49 to 1957–58. However, only about 250 students completed college courses in 1949 qualifying them for elementary positions. This figure compares with 280 in 1948, 220 in 1945, and 215 in 1941. It is evident that a much larger number of graduates are needed.

[5] Indiana School Study Commission, *Employed School Personnel* (Mimeographed), 1948, p. (G) 19.

In contrast to the situation in the elementary grades, keen competition is developing for high school positions. The Indiana School Study Commission reported during the 1948–49 school year:

> The total high school teacher output of Indiana colleges and universities in 1948 was approximately equal to the demand. There is evidence that the supply is rising above the demand in the total number with a growing oversupply in the fields of English, Mathematics, Modern Languages, Social Studies, Biological Sciences, Health and Boys' Physical Education.[4]

According to the above table, an average of about 800 new high school teachers will be needed annually during the next 9 or 10 years. Approximately 2,000 students completed college courses preparing them for high school positions in 1949; this compares with 1,776 in 1948 and 1,229 in 1941. Although some of these students may not enter the profession, it is likely that there will be a surplus of high school teachers in most teaching fields during the next few years. However, additional teachers will be needed in home economics and agriculture for 1949–50.

[4] *An Evaluation of Indiana Public Schools*, Indiana School Study Commission, November 1948, Indianapolis, Indiana, p. 34.

Earnings

Indiana's new State-mandated minimum salary schedule for 1949–50 is as follows: for a 9-month term:

Educational preparation	Minimum	Increments	With full credit for experience
2 years	$1,800	6 @ $45	$2,070
3 years	2,025	6 @ 45	2,295
4 years	2,400	10 @ 45 2 @ 90 1 @ 95	3,125
5 years	2,400	23 @ 52.86 1 @ 184.47	3,800

According to a survey by the Indiana State Teachers Association, median salaries of Indiana teachers were as follows in 1948–49:

Size of community	Kindergarten	Elementary	Junior high school	High school
Entire State	$2,917	$2,698	$3,506	$3,224
Cities of 30,000 and over	3,245	3,587	3,819	4,147
Cities of 10,000–30,000	3,105	3,395	3,621	3,949
Cities of 5,000–10,000	2,350	2,730	3,069	3,274
Cities of 2,500–5,000	2,333	2,655	3,017	3,230
Town schools	2,550	2,384	2,767	2,980
Township schools	—	2,317	2,961	2,894

IOWA

Number of Teachers and Enrollments

During the school year 1948–49 there were about 14,000 teachers, principals, and supervisors and 328,500 pupils in the public elementary schools. The public high schools employed about 7,650 teachers for their 137,450 students.

Certification Requirements

Regular certificates to teach in elementary schools are granted to persons who have completed 2 years of college work. Graduation from a 4-year college course is required for high school teaching. The training of candidates for this certificate must have included 15 semester hours of professional education courses, at least 3 hours of which are in student teaching and observation. The State Superintendent of Public Instruction has also issued emergency certificates to persons who did not meet these requirements.

Outlook

There was a shortage of elementary teachers in Iowa during 1948–49, and this is expected to continue during the next few years. It is estimated that about 1,500 new teachers were needed during the 1948–49 school year to replace those who left the profession, and it is expected that a similar number of replacements will be needed annually during the next few years. An average of about 100 additional teachers will probably be needed annually during the next 3 years to handle an expected 10,000 increase in enrollments. Other qualified teachers are needed to replace some of those holding emergency certificates (about 1,000 such certificates were in force in the spring of 1949). About 850 students from Iowa teacher-training institutions were expected to complete preparation to teach in elementary schools in 1949, as compared with 684 in 1948 and 789 in 1941. Even the 1949 supply will obviously fall far short of the number needed.

Employment of elementary teachers will have an upward trend until the late 1950's. It is estimated that in the fall of 1956 enrollments in elementary schools (grades 1 to 8) will be about 64,000 higher than in the 1948–49 school year. About 2,100 additional teachers would be needed to handle this increase in enrollment, on the basis of a 30 to 1 pupil-teacher ratio. In addition, assuming an attrition rate of 10 percent, applied to the expanded staff, an average of about 1,600 elementary teachers will probably be needed annually during the late 1950's to replace those who leave the profession each year owing to death, retirement, or transfer to another occupation.

The demand for high school teachers is not as great as for elementary teachers, but many well-qualified people will be able to find positions as replacements for those who leave the profession. If we assume an attrition rate of 10 percent, about 800 new teachers would be needed annually as replacements during the next 2 or 3 years. Additional persons may also be hired to replace some of the teachers now employed on substandard certificates.

There has recently been an increase in the number of students preparing to enter high school teaching. About 1,800 students are expected to complete courses in 1949 qualifying them for high school teaching. This compares with 1,450 in 1948 and 982 in 1941. Although some of these graduates will not enter the teaching profession, it is likely that there will be an oversupply of high school teachers in the near future.

As the peak enrollments pass from the elementary grades to high school (grades 9 to 12), there will be an increased demand for high school teachers. It is estimated that an average of about 150 additional high school teachers will be needed per year to take care of the increase of about 15,000 students in high school enrollments between 1954–55 and 1957–58. On the basis of a 10-percent attrition rate, about 850 will be needed each year to replace those who leave the profession during this period. High school enrollments will continue to increase slightly during the early 1960's but at a less rapid rate.

Earnings

In 1948–49 the average teaching salary in Iowa was $2,400. The median salary for elementary teachers was $3,500 in cities of 15,000 and over, $2,300 in cities from 2,000 to 14,999, and about $2,000 in smaller communities. Men high school teachers had a median salary of $3,600 in large cities, $3,200 in small cities, and about $2,850 elsewhere. Women secondary teachers had median earnings of $3,200 in large cities, $2,600 in small cities, and $2,500 elsewhere.

Des Moines had a single-salary schedule in 1948–49, which began at $1,900 for 60 semester-hour certificates. Holders of the bachelor's degree certificates started at $2,200 and may eventually work up to $3,250, while those who have earned the master's degree start at $2,400 and may reach $3,550. A cost-of-living adjustment of $600 was added to the scheduled salaries.

The minimum scheduled salary (no bonus) for holders of bachelor's degree certificates in Cedar Rapids, Council Bluffs, and Davenport was $2,400 in 1948–49. In Waterloo, it was $2,160, plus a $240 cost-of-living adjustment. In Ottumwa, a position-preparation schedule was in effect which provided $2,200 for women elementary teachers and $2,300 for women holding degree certificates as junior and senior high school teachers; men receive $100 to $300 more.

KANSAS

Number of Teachers and Enrollments

Roughly 17,000 teachers, principals, and supervisors were employed in 1948–49 in the public schools of Kansas to teach about 340,000 pupils. There were about 10,000 teachers for 252,000 pupils in the elementary schools and 7,000 teachers for 88,000 high school students.

About one-fifth of the teachers but only one-eighth of the pupils were in one-teacher rural schools in 1947–48. Less than two-fifths of the teachers taught in towns of 2,000 or more population, where half the total student body was enrolled. Cities of 15,000 or more—including Topeka, Wichita, and Kansas City—had one-fifth of the teachers and a quarter of the public school pupils.

Certification Requirements

Minimum educational requirement for a regular high school certificate is a bachelor's degree, with 18 semester hours in education courses. Holders of this certificate may teach in secondary or elementary schools; however, beginning in 1952, only teachers with training in elementary education will be permitted to teach in elementary grades. The requirements as to training in subject fields are different for teachers in class A, B, and C high schools. In general, for class A schools—the top-ranking ones—it is necessary to

have 15 semester hours in the general subject field and 5 hours in the particular subject taught. To qualify for a special secondary certificate, which entitles the holder to teach only those subjects specified on the certificate, one must meet additional requirements.

For a regular 2-year elementary certificate, the applicant must be a high school graduate and must have completed 60 semester hours in an accredited college, including 5 semester hours in observation and participation in classroom work. Three years' experience will be accepted in place of the latter requirement.

Elementary provisional certificates will be issued in 1949–50 to persons who have completed 24 semester hours of college work; this requirement will be raised to 30 hours in 1950–51. Starting in 1952, training in elementary education will be required. Emergency certificates, issued during the war to persons with lower qualifications, and several forms of standard certificates issued prior to the war have been discontinued. Present holders of emergency certificates will have to complete 8 additional semester hours of college work to obtain a renewal for the 1949–50 school year.

As in other States, many school boards, particularly in the cities, make additional requirements with respect to experience and education, over and above the State minimum standards.

Outlook

Kansas has had a great shortage of elementary teachers since the war. In 1948–49, nearly 1,600 elementary teachers not in the system the preceding year were taken on, largely as replacements for those dying, retiring, or leaving for other reasons. Yet only about 630 students completed elementary-teacher-training courses of 30 semester hours or more at Kansas institutions in 1948. The deficit of 970 teachers was made up to some extent by recruits from other States and personnel returning to the profession after periods in other fields of work or out of the labor force, but it was also necessary to take on many teachers with less than 30 hours of college training.

In 1949–50, the situation is likely to be much the same. Replacement needs will probably be about as great as in the preceding year. The supply of students completing training in 1949 has been estimated at 640 (including 183 with only 30 semester hours of training, 280 with 60 semester hours, 1 with 90 hours, and 176 college graduates). Obviously, the State's elementary schools, particularly those in rural areas, will take on many teachers who meet only the 24-hour requirement set for provisional certificates. Little if any progress will be possible toward replacing the large group of teachers with still lower qualifications who were hired in previous years on emergency certificates or other types of permits no longer issued to new recruits. The State Department of Public Instruction anticipates, however, that many of these teachers will, through summer school attendance, gradually increase their training until they qualify for provisional or still higher types of certificates.

Long-run employment prospects are good for holders of even the lowest grade of certificate currently issued. Elementary enrollments are expected to continue rising in Kansas until about 1956–57, when they may be about 50,000 higher than in 1948–49. At a pupil-teacher ratio of 30 to 1, this would call for the employment of about 1,600 additional teachers over the 8-year period. The greatest increase in enrollments and therefore the heaviest demand for teachers is expected from 1952 to 1956, when a pupil-teacher ratio of 30 to 1 would call for the employment of about 1,300 additional teachers over the 4-year period. In addition, a sizeable number of teachers will be needed each year as replacements. It is likely that the attrition rate may drop from the 1948–49 figure of about 16 percent; if it should, for example, be as low as 10 percent, an average of about 1,000 or 1,100 teachers per year would still be needed during the middle and late 1950's. These estimates do not allow for consolidations of rural schools, which, no doubt, will tend to reduce the number of new teachers needed.

At the high school level, competition for jobs is in prospect for the next few years. High school enrollments are declining; so teachers will, in general, be taken on only to meet replacement needs; in 1948–49, these amounted to about 800 and will probably be of the same general magnitude in 1949–50. The supply of students completing training for high school work in the State in 1949 has been estimated at nearly 1,200. In some subject fields—including boys' physical education, English, and social sciences—the State Department of Public Instruction anticipates a surplus of applicants in 1949–50. However, there will be continuing shortages in that year in some fields. Teachers trained for secondary school work should be able, if they wish, to find employment in the elementary schools in the next few years, since no special training in elementary education will be required until 1952.

High school enrollments will have a downward trend until the middle of the 1950 decade but are expected to reach a turning point about 1955, when the relatively large number of children born during the war years begin to enter high school. By 1959–60, enrollments may be approximately 12,000 higher than at the low point 5 years previously but not much more than 5,000 higher than in 1948–49. With a pupil-teacher ratio of 25 to 1, this gain would mean a total expansion of only about 200 in the teaching force above the 1948–49 level.

Earnings

According to a survey by the Kansas State Teachers Association, the average salary of elementary classroom teachers in 1948–49 was about $1,950. There was wide variation, however, by size of community: in one-teacher rural schools, the average was about $1,530; in towns of 2,000 or more population, about $2,180; and in cities with 15,000 or more, $2,750. Junior and senior high school teachers, employed mostly in the cities, averaged $2,820 and $2,830, respectively; these averages were from $100 to $200 higher than corresponding figures for the previous year. The new State aid law passed in the spring of 1949 will tend to bring about some further salary increases, particularly in rural schools.

In Kansas City and Wichita, the salary schedules for women teachers were as follows in 1948–49:

Educational preparation	Annual salary		
	Minimum	Increments	Maximum
KANSAS CITY			
60 semester hours	$1,838	11 @ $77	$2,688
90 semester hours	2,147	7 @ 77	2,688
Bachelor's degree	2,379	11 @ 77	3,229
Master's degree	2,456	15 @ 77	3,615
WICHITA			
Bachelor's degree	2,300	12 @ 100	3,500
140 hours	2,400	12 @ 100	3,600
Master's degree or bachelor's degree, plus 40 hours of graduate work	2,500	12 @ 100	3,700

In Kansas City men may earn 5 more increments, resulting in a maximum of $3,615 for those with a bachelor's degree and $4,002 for those with a master's degree.

In Wichita they receive a $200 differential. In Kansas City additional training is required every 5 years to advance on the schedule and to remain at the maximum; a similar proviso will apply to Wichita contracts for 1950–51 and following years.

KENTUCKY

Number of Teachers and Enrollments

The public school system of Kentucky employed about 19,000 classroom teachers, principals, and supervisors and had 540,200 pupils enrolled in 1948–49. Only about one-fourth of the enrollments and teachers were in urban schools (cities with 2,500 or more population); nearly 3,300 teachers were in one-teacher schools. The elementary schools employed 13,290 teachers and had 422,975 pupils enrolled; secondary schools had 5,610 teachers and 117,225 pupils. Approximately 1,330 teachers and 38,000 pupils were in schools for Negroes.

Certification Requirements

The educational requirements for the provisional elementary teaching certificate, which is valid for 3 years, are a minimum of 2 years of college preparation (64 semester hours) with at least 9 semester hours in English, 6 in science, 9 in social sciences, 6 in fine arts, 4 in health, and 17 in professional education, including 4 in supervised teaching. For the standard elementary certificate, valid for 4 years, the bachelor's degree with 28 semester hours in professional education, including 8 in supervised teaching is required. The bachelor's degree is required for the high school provisional certificate which is valid for 4 years. Training must include at least 18 semester hours in professional education subjects, of which 8 to 9 hours must be in student teaching. The standard high school certificate, valid for 5 years, is issued to applicants who have completed the requirements for a master's degree in a standard graduate school.

Emergency certificates are issued under certain

circumstances to applicants not meeting regular requirements. New applicants for such certificates in 1949–50 must have at least 1 year of college training for elementary teaching and at least the bachelor's degree for the high school level.

Outlook

Elementary teachers for white schools will be in strong demand in Kentucky during the next few years. Shortages in rural schools are expected to continue to be especially acute. In 1948–49 more than 4,000 emergency certificates were issued; nevertheless 15 one-teacher schools did not open. Qualified teachers will be needed to replace some of those employed on emergency certificates, as well as to take care of the increasing enrollments resulting from the high birth rates in the early 1940's. In addition, many teachers retire, die, or otherwise leave the profession each year and replacements are needed for them. In 1948–49, about 1,750 new teachers were employed in the elementary schools mostly as replacements; it is expected that at least as many will be needed in 1949–50 as in the preceding year. That the supply of white elementary teachers is inadequate to meet the demand is indicated by the fact that less than 600 white students were expected to complete preparation in teacher-training institutions in the State in 1949. The supply of colored teachers appears to be adequate to meet the demand in most localities.

The demand for elementary teachers is expected to remain high during the 1950's. Elementary enrollments (grades 1 to 8) will probably continue to rise each year until about 1956–57, when they may be some 90,000 higher than in 1948–49. On the basis of 30 pupils per teacher, the increased enrollments would require 3,000 new teaching positions. The replacement rate for teachers is expected to decrease somewhat, but even at the prewar rate of around 7 percent there would be need for over 1,000 new teachers annually during the last half of the 1950 decade.

Competition is expected during the next few years for secondary school positions in most subject fields, particularly English and social science. However, in 1948–49 there was still a shortage of music, library science, and home economics teachers. A few new positions may be required, as enrollments are expected to rise moderately because of increasing efforts to bring rural pupils into the high schools. About 280 new teachers will probably be needed annually for replacements, assuming an attrition rate of 5 percent. Also, some of the 300 teachers employed on emergency certificates in 1948–49 may be replaced by fully qualified personnel.

In relation to these demands, teacher-training institutions in the State expected to graduate 1,156 students qualified for secondary school teaching in 1949, as compared with 727 in 1948 and 1,195 in 1941. Some of the surplus of teachers with high school certificates may take positions in the elementary schools. Such persons may teach in the elementary grades for 1 year on an emergency basis, but they must take 8 semester hours of work in elementary education to serve again. Opportunities for Negro teachers are very few in relation to the supply.

About 1952, the number of secondary teachers needed will start to increase, as the peak enrollments begin to reach the high schools (grades 9 to 12). Enrollments in these grades will increase each year thereafter through 1960 or later. On the basis of 25 pupils per teacher, it is estimated that these increased enrollments will require about 950 more teaching positions in 1959–60 than there were in 1948–49. The greatest increase for any one year will probably occur about 1956–57, requiring some 260 more teaching positions than in the previous year, on the above assumption as to class size. As the teaching staff is expanded, the number who leave the profession each year will increase and will probably amount to over 300 annually in the latter years of the 1950 decade if an attrition rate of 5 percent prevails. Nevertheless, it appears that a high school teacher supply as large as that of 1949 would more than meet the needs in the 1950's.

Earnings

According to a report issued by the Department of Education, median annual salaries of full-time teachers in 1948–49 were as follows:

	White	Colored
County schools:		
Elementary	$1,197	$1,343
High School	1,766	1,771
Independent schools in cities:		
Elementary	2,052	2,178
High school	2,625	2,467

The single-salary schedules in effect in 1948–49 for teachers in the cities of Louisville, Covington, and Lexington are given on page 37.

Educational preparation	Annual salary		
	Minimum	Increments	Maximum
LOUISVILLE			
2 years	$2,000	12 @ $75	$2,900
3 years	2,200	12 @ 75 1 @ 100	3,200
Bachelor's degree	2,400	11 @ 100 2 @ 200	3,900
Master's degree	2,600	12 @ 100 2 @ 200	4,200
COVINGTON			
No degree	1,975	15 @ 80	3,175
Bachelor's degree	2,075	15 @ $80	$3,275
Master's degree	2,175	15 @ 80	3,375
Doctor's degree	2,275	15 @ 80	3,475
LEXINGTON			
Bachelor's degree	2,000	11 @ 25–75	2,700
Bachelor's degree plus 15 hours	2,050	12 @ 50–75	2,800
Master's degree	2,150	13 @ 50–75	2,950
Master's degree plus 15 hours	2,200	13 @ 50–75	3,000

LOUISIANA

Number of Teachers and Enrollments

This State's public schools had about 15,550 classroom teachers, principals, and supervisors in 1948–49, only 15 percent of whom were employed in cities with 2,500 or more population. The elementary schools employed approximately 10,900 teachers for 372,000 pupils; about 4,000 of these teachers and 156,000 of the students were in Negro schools. Secondary schools had 4,650 teachers and 85,000 pupils; the numbers of Negroes included were about 800 teachers and 17,000 students.

In 1948–49 the State schools were in process of shifting from an 11-grade to a 12-grade system. The transition was expected to be completed in 1949–50.

Certification Requirements

Minimum educational requirements for the lowest grade regular elementary certificate (type C) are a bachelor's degree with 46 semester hours in general courses, 31 hours in specific subjects applicable to elementary teaching, and 24 hours in professional education courses including 4 hours of student teaching and 14 hours appropriate to elementary schools. Negro teachers with 2 years of college—including a 4-semester-hour course in practice teaching in the elementary grades unless they have had 5 years of teaching experience—can obtain elementary certificates valid for 5 years.

For the regular high school certificate the requirements include a bachelor's degree with 46 semester hours in general courses and 18 hours in professional education, including 4 hours in student teaching. In addition, stipulated numbers of hours must have been completed in the subjects to be taught.

Requirements for emergency certificates are not standardized throughout the State and are, of course, much lower in some of the school districts than the State minimum requirements for regular certification.

Outlook

Employment opportunities for elementary teachers will be excellent over the next few years. Additional personnel are needed to teach the increased numbers of children reaching school age, and fully qualified teachers are needed to replace many of the persons teaching on emergency permits (nearly 1,000 such permits were issued in 1948–49). In addition, about 550, or 5 percent, of the elementary staff leave teaching in the State each year and replacements are needed for them. Approximately 35 percent of these new teacher needs are for Negro teachers. In 1948 only 130 white and 190 Negro students from Louisiana teacher-training institutions had completed preparation for elementary teaching. Even if this supply were doubled in 1949, the supply of elementary teachers would be inadequate to meet the demand.

Many additional elementary teachers will have to be employed during the next decade. Enrollments at the elementary level (grades 1 to 8) will continue to increase each year until about 1957–58, when they may be nearly 131,000 higher than in 1948–49. On the basis of 30 pupils to a teacher, the increased enrollments would require about 4,350 more teaching positions over the 9-year period. During the latter years of the decade nearly 800 new teachers would be needed annually to replace those who leave the profession, if the attrition rate remains about 5 percent.

The employment outlook for high school teach-

ers is similar to that for elementary teachers. The secondary schools will need personnel in 1949–50 to take care of increasing enrollments, as replacements for some of the 240 teachers employed on emergency permits in 1948–49, and to implement the shift from an 11-year to a 12-year school system. In addition, it was estimated that in 1948–49, 465 teachers—10 percent of the total number employed—were needed as replacements for those leaving the profession; approximately the same number will probably be needed in the fall of 1949. Contrary to the situation in most States, the supply of secondary teachers from training institutions in Louisiana is not expected to be adequate to meet the demand. In 1948, 711 students completed preparation for secondary teaching in 18 out of 19 of the State's teacher-training institutions. A supply of this size in 1949 may eliminate some emergency certificates.

Around 1953, secondary school enrollments (grades 9 to 12) and the number of teachers needed will begin to increase more rapidly, rising each year throughout the decade or longer. By 1959–60, enrollments may be about 64,000 higher than in 1948–49; on the basis of 25 pupils per teacher, this increase would require about 2,500 additional teaching positions. The number of replacements needed during the latter part of the 1950 decade, estimated on the basis of a 10-percent attrition rate, would be about 700 annually.

Earnings

A minimum salary schedule for public elementary and secondary school teachers was adopted in 1948 by the State legislature. The schedule provided for $100 increments for each added year of experience to the maximum, and the rates were for a 9-month school session. If the school session was shorter, rates were reduced accordingly; i. e., for a 7-month session, the salary would be seven-ninths of the stipulated rate. The schedule was as follows:

Years of experience	Educational preparation					
	Less than 1 year	1 year	2 years	3 years	Bachelor's degree	Master's degree
1	$1,200	$1,500	$1,800	$2,100	$2,400	$2,500
2	-------	-------	1,900	2,200	2,500	2,600
3	-------	-------	2,000	2,300	2,600	2,700
4	-------	-------	2,100	2,400	2,700	2,800
5	-------	-------	-------	2,500	2,800	2,900
6	-------	-------	-------	-------	2,900	3,000
7	-------	-------	-------	-------	3,000	3,100
8	-------	-------	-------	-------	3,100	3,200
9	-------	-------	-------	-------	3,200	3,300
10	-------	-------	-------	-------	-------	3,400
11	-------	-------	-------	-------	-------	3,500
12	-------	-------	-------	-------	-------	3,600

The salary schedules in effect in New Orleans, Baton Rouge, and Shreveport in 1948–49 were approximately the same as the State schedule, although there were slight variations in rates.

MAINE

Number of Teachers and Enrollments

Maine is unusual in that 99.8 percent of all children between the ages of 5 and 17 were registered in some school program in 1948–49. The public school enrollment was approximately 160,000; three-fourths were in the elementary schools. Over 6,000 classroom teachers, principals, and supervisors were employed, 72 percent in the elementary schools. About two-thirds of the total instructional staff was in rural schools.

Certification Requirements

Minimum academic requirement for a standard professional elementary certificate is graduation from a 4-year college course, with a bachelor's degree. A professional elementary certificate can be obtained upon graduation from a 3-year normal course in the elementary field in an approved normal school. A nonprofessional elementary certificate can be obtained upon completion of two or more years of college work, including 6 semester hours in the field of elementary teacher training.

Requirements for the junior high certificate—professional grade—are completion of either an approved 3-year junior high school course in an accredited normal school or a 4-year college course including 18 semester hours of education, 12 of which must be in the junior high school field.

To obtain a secondary certificate—professional grade—one must be a graduate of an accredited college and have earned 18 semester hours credit in education courses. To obtain a nonprofessional secondary certificate, it is necessary to be a graduate of an accredited college with 12 semester hours credit in professional courses.

Emergency certificates are issued to applicants who do not meet regular requirements, when qualified candidates are not available.

A survey based on 1947–48 data showed that the majority (52 percent) of all Maine teachers had between 2 and 4 years of college education. Thirteen percent had less than 2 years' training beyond high school, and 35 percent had some training beyond the A. B. degree.

Outlook

The shortage of elementary teachers may be more pronounced in 1949–50 than in the previous year. The State Department of Education[7] estimates that 450 elementary teachers are needed annually for normal replacement of personnel losses. Additional teachers will be needed to meet the anticipated expansion in enrollments in the lower grades. It would be desirable also to have qualified teachers to replace many of the 325 to whom emergency certificates were issued in 1948–49 and to make it possible to reduce the size of classes; the Department estimated that almost half of the elementary units had more than 30 pupils per teacher in 1948–49. However, it is doubtful if teachers can be found for either of the two last-mentioned purposes, since the immediate needs of the 1949–50 school year will probably be larger than the available supply. Only 169 college students from 15 teacher-training institutions in Maine completed requirements for regular elementary certificates in 1948; the number doing so in 1949 is likely to be about the same. The supply from this and other sources will probably be so small that it will be necessary to hire more emergency teachers and overcrowd the classrooms to a greater extent in 1949–50 than in the previous year.

To take a longer view, the State Department of Education estimates that, on the basis of 30 pupils per teacher, 1,200 additional elementary teachers will have to be added between 1948 and 1956 to handle increased enrollments. This demand will be added to normal replacement needs (estimated at about 450 annually) and to the number of teachers needed to bring the staff up to more desirable levels of training and class load. After 1956 enrollments are expected to decrease somewhat, and needs for new teachers will be limited largely to replacements.

The supply of high school teachers will probably be more than adequate to fill all positions in the next few years. The Department of Education has estimated that 150 secondary teachers are needed each year for normal replacements. Since enrollments are expected to increase slightly over the 1948–49 level, a few new teachers may have to be recruited to take care of the additional pupils. Efforts will also be made to wipe out the shortage that still remained in 1948–49; in that year 125 teachers were still employed on an emergency basis and about one-sixth of the classes were too large. The number of new graduates from Maine institutions which train high school teachers will probably be about 310, as in 1948. Applicants from among these graduates, together with those from outside of the State, should be sufficient to meet all needs except, perhaps, a few positions requiring specialized training. There will probably be considerable competition for positions in the social sciences and some other fields.

Between 1947–48 and 1955–56, the Department expects high school enrollments to rise by only 4,000 and the consequent demand for additional teachers to amount to only 160 during the 8-year period. After 1956, however, a much sharper rise in enrollments is forecast. The Department estimates that there may be 9,500 more high school students in 1959–60 than 4 years previously. At a pupil-teacher ratio of 25 to 1, this rise would necessitate the hiring of 380 teachers in addition to normal replacements.

Earnings

The State salary law in effect in 1949 set a minimum of $1,500 for teachers with the lowest grade of certificate, one of $1,700 for those with a bachelor's degree, and a floor of $1,800 for those with the master's degree. However, the estimated average annual salary of secondary classroom teachers for 1948–49 was $2,530; for elementary teachers, $1,843. These averages were about $60 or $70 more than the corresponding figures for 1947–48.

Earnings of classroom teachers in both elementary and secondary grades for the year 1947–48 were distributed as follows, according to figures from the State Department of Education:

Five percent made less than $1,500 a year;
Eleven percent made $1,500 to $1,799 a year;
Fifty-six percent made $1,800 to $2,399 a year;
Twenty-one percent made $2,400 to $2,999 a year;
Seven percent made $3,000 to $3,999 a year;
A negligible number made over $4,000 a year.

[7] Estimates attributed to the Maine State Department of Education are taken from the following article in the Maine Teacher's Digest: *Maine's Teacher Supply*, by E. H. Scott, Deputy Commissioner of Education, December 1948, p. 111.

MARYLAND

Number of Teachers and Enrollments

In 1948–49, Maryland public schools employed about 10,000 classroom teachers, supervisors, and principals to instruct about 310,000 pupils, of whom nearly half were in rural schools. Nearly three-fifths of the teaching staff and four-fifths of the pupils were in the elementary schools. About 20 percent of the instructional staff were Negroes.

Certification Requirements

The minimum educational requirement for regular certification of high school teachers in the State of Maryland is a bachelor's degree (applicant must rank in upper four-fifths of class). The college training must include from 18 to 27 semester hours in the major subject field; in special subjects such as music and art, 30 semester hours are required. In addition, 16 semester hours of education courses, including 5 in practice teaching and observation must be completed. Two years' teaching experience may be substituted for the practice teaching.

Applicants for regular junior high school certificates must have completed at least a 4-year college course, including 12 semester hours each of English, social studies, and science; 18 semester hours in the major subject field; and 16 semester hours in education, of which 25 clock hours must be practice teaching.

The basic requirement for elementary school certificates is a bachelor's degree in elementary education.

Emergency certificates are issued when necessary to applicants not meeting all the above requirements.

Outlook

The great shortage of qualified elementary teachers which developed in Maryland during and since the war is expected to continue for the next few years at least. In-migration plus high wartime birth rates caused greatly increased enrollments in the lower grades, at a time when excellent employment opportunities were available for teachers in other jobs, especially in industrial cities such as Baltimore, and in Government work in nearby Washington, D. C. The greatest increases in enrollments have been in Anne Arundel, Baltimore, Montgomery, and Prince Georges Counties. The two latter counties are adjacent to Washington, D. C., and have received added school-age population as a result of the trend for families with children to move into suburban areas. It was estimated that more than 75 percent of the State's increase in enrollments occurred in these four counties in 1947.

In addition to the need for teachers to handle increased enrollments in the elementary schools (grades 1 to 8) and to replace many of the emergency teachers (about 950 emergency certificates were issued in 1948–49), there is an annual need for many teachers to fill vacancies caused by deaths, retirements, and other withdrawals from the profession. In 1948–49, as many as 750 elementary teachers (or 13 percent of the staff) were estimated to have been needed to replace such losses. The demand for teachers in 1949–50 is expected to be at least as great as in the previous year. To meet the needs, only 150 elementary teachers (including 46 Negroes) were expected to be graduated from Maryland institutions in 1949; this is about the same number as completed training in 1941, when the demand was considerably less. A good many teachers are being drawn from other States, especially those in the South; however, since shortages at the elementary level exist all over the country, it is doubtful if enough qualified personnel for all jobs in this State can be supplied in the next few years.

The number of elementary teaching positions will probably increase until the mid-1950's. Enrollments in the elementary schools are expected to continue to rise until about 1955–56, when they may reach a point about 115,000 above the 1948–49 level. To provide enough teachers for these additional pupils, on the basis of one for every 30 students, about 3,800 new positions would have to be filled during the 7-year period. If the replacement rate should remain about 13 percent, approximately 1,250 teachers may be needed annually in the mid-1950's to replace those withdrawing from the profession. Enrollments are expected to decrease somewhat in the latter part of the decade, but replacement needs may well continue to be over 1,000 per year.

The teacher supply and demand situation is more nearly in balance in the high schools (grades 9 to 12) than in the lower grades. Enrollments are expected to increase only slightly for the next few years and few new teaching positions will be created; therefore, secondary teachers will be needed chiefly as replacements for those leaving the profession in the State. In 1948–49, it was estimated that 750 or 17 percent of the high school teachers had to be replaced; the number may be this high in 1949–50. To meet this demand, the teacher-training institutions in Maryland expected to graduate about 530 high school teachers (including 110 Negroes) in 1949—as compared with 370 in 1948 and 320 in 1941. The new graduates, plus the large number of teachers coming from other States where an oversupply of secondary school personnel is already evident, are expected to provide enough teachers in most subject fields. Teachers of science, mathematics, music, and industrial arts may still be in short supply.

Considerably expanded opportunities are anticipated in Maryland high schools after about 1954. Beginning about that time, enrollments in grades 9 to 12 are expected to increase rapidly. They will have an upward trend till the end of the decade and beyond, with the greatest increases occurring about 1956 to 1958; on the basis of 25 students per teacher, over 1,000 new teachers would be required during this 2-year period to take care of the increased enrollments. From 1958 to the end of the decade, between 200 and 300 additional teachers may be needed annually. The replacement rate will probably decline from the 1949 figure, but even at a 10-percent rate about 600 new teachers would be needed annually as replacements in the last part of the 1950 decade.

Earnings

Maryland's State-mandated minimum salary schedule for 1948–49 provided a starting salary of $2,200 for degree teachers, plus annual increments of $100 each. The maximum in 1952–53 will be $3,800 after 17 years' experience.

Ten counties and the city of Baltimore have higher schedules. Their starting salaries for degree teachers ranged from $2,300 to $2,600 in 1948–49. By 1952–53, the maximum in these districts will range from $3,900 to $4,700.

The full salary schedules for teachers in Baltimore and in Allegany and Prince Georges Counties were as follows in 1948–49:

Educational preparation	Annual salary		
	Minimum	Increments	Maximum
BALTIMORE [a]			
2 years	$2,200	9 @ $200	$4,000
3 years	2,400	9 @ 200	4,200
4 years	2,600	10 @ 200	4,600
5 years	2,800	10 @ 200	4,800
6 years	3,000	10 @ 200	5,000
ALLEGANY COUNTY [b]			
Without degree	2,200	13 @ 100	3,500
Bachelor's degree	2,400	13 @ 100	3,700
Master's degree	2,600	13 @ 100	3,900
PRINCE GEORGES COUNTY [c]			
Provisional certificate	1,800	11 @ 100	2,900
2d grade certificate	2,000	11 @ 100	3,100
1st grade certificate	2,200	16 @ 100	3,800
Bachelor's degree	2,400	16 @ 100	4,000
Master's degree	2,600	16 @ 100	4,200

[a] Additional training is required before the third, sixth and final increments are given. No increment is given in the tenth year of service to teachers with less than 4 years' of preparation.

[b] No increment is given in the second year of service. Bachelor's degrees are required of new applicants. In 1949–50, maximum salaries will be $100 higher than the schedule shown; in 1950–51, they will be $200 higher.

[c] Increments are given only to teachers who are rated first-class; all teachers are rated second-class until they have taught at least 2 years in Maryland public schools.

MASSACHUSETTS

Number of Teachers and Enrollments

Massachusetts public schools employed about 24,000 classroom teachers, principals, and supervisors to teach approximately 590,000 pupils in 1948–49. About 73 percent of the pupils and 67 percent of the teachers were in elementary schools. An exceptionally high proportion (almost 90 precent) of the public school teachers were in urban schools. The city of Boston employs about 4,000 classroom teachers.

Certification Requirements

Massachusetts has no State-wide certification system. However, a bill to establish certification was introduced in the Massachusetts Legislature in 1949.

Local school districts usually require 3 years of college training for elementary teaching. Junior and senior high school teachers are usually required to have 4 years of college, including 12 semester hours of professional education

courses. If qualified teachers are not available, persons unable to meet these standards are hired on a temporary basis.

Outlook

Well-qualified elementary teachers should have good employment prospects in Massachusetts in the near future, though the need for them is likely to be less acute than in most other States. The Massachusetts Department of Education reports that an adequate number of elementary teachers will be available for the 1949–50 school year. The number of college students completing education courses in the State will probably be within a few hundred of the total number needed to replace withdrawals and handle increased enrollments. Additional teachers may be obtained by employing more married women and by retraining high school teachers and college graduates with training in entirely different fields.

During the 4-year period 1948–52, an increase of about 72,000 in elementary school enrollments (grades 1 to 8) is expected. On the basis of 30 pupils per teacher, an average of about 600 new positions would be needed each year to take care of the increased enrollments. From 1,000 to 1,300 additional elementary teachers would be needed annually during this period as replacements, if 7 percent of the staff retire or leave the profession for other reasons. The supply of elementary teachers will increase also, judging from the current peak enrollments in education courses as reported by the Director of State Teachers Colleges.

The peak demand for elementary teachers will probably come in 1953–54 and 1954–55, when an increase in enrollments of almost 60,000 is expected to occur. With a pupil-teacher ratio of 30 to 1, this would mean an average of about 1,000 new positions each year. After 1955, enrollments are likely to decrease somewhat; however, the number of teachers needed as replacements, based on an attrition rate of 7 percent, would remain well over 1,000 each year to 1960.

A surplus of high school teachers is in prospect in 1949–50. From 1949 to 1951, enrollments in the high schools (grades 9 to 12) will probably decline. Needs during this period will be confined chiefly to the replacement of teachers who die, retire, or leave the profession for other reasons. Based on an attrition rate of 5 percent, about 400 teachers would be needed each year for this purpose. The supply of high school teachers will probably increase a great deal beginning about 1950, because enrollments in teacher-training courses in this State are at the highest level since 1927.

Starting about 1951, enrollments will climb and extra teachers will be called for to handle newly formed classes. From 1952 to 1959, an increase of about 50,000 pupils is expected; on the basis of 25 pupils per teacher, this would mean an average of about 300 new positions each year. Assuming an attrition rate of 5 percent, approximately 500 additional teachers would be needed annually as replacements during this period.

Earnings

The estimated average annual salary for secondary classroom teachers in 1948–49 was $3,360; for elementary teachers, $2,960; for principals, $4,390. The city of Boston, with an average annual salary of $3,771, ranked eleventh among the Nation's 20 largest cities in this respect.

Basic salary schedules for four of the State's largest cities are given below:

Educational preparation	Annual salary		
	Minimum	Increments	Maximum
BOSTON, 1949–50			
Elementary and junior high	$2,484	10 @ $144	$3,924
Senior high	2,916	13 @ 144	4,788
FALL RIVER, 1949–50			
Less than 4 years of college	2,280	8 @ 120	3,240
Bachelor's degree	2,280	10 @ 120	3,480
Master's degree	2,280	12 @ 120	3,720
LOWELL, 1948–49			
Elementary and junior high	2,250	2 @ 250 1 @ 224	2,974
Senior high	2,250	3 @ 250 1 @ 200	3,200
SPRINGFIELD, 1948–1949 [a]			
2 years	2,116	9 @ 100	3,016
3 years	2,266	11 @ 100 1 @ 50	3,416
4 years	2,416	14 @ 100	3,816
5 years	2,566	16 @ 100 1 @ 50	4,216
6 years	2,716	17 @ 100	4,416

[a] A cost-of-living adjustment of $208 was added to scheduled salaries for Springfield in 1948–49. Four years' training is required of new applicants.

MICHIGAN

Number of Teachers and Enrollments

This State had about 23,000 teachers and 740,000 pupils in the public elementary schools during the school year 1948–49. The public high schools employed about 13,300 teachers for their 213,600 students.

Certification Requirements

Graduation from a 4-year college course is required for the standard teaching certificate. Candidates for the certificate must have completed 20 semester hours of professional education courses, including at least 5 in student teaching. In addition, high school teachers must have a total of 24 hours in their major field and at least 15 hours in two minor subjects. A limited certificate to teach in rural schools may be granted to persons who have completed only 2 years of college work, with 15 hours of professional education courses. Emergency certificates are granted to persons not satisfying these requirements.

Outlook

A severe shortage of elementary teachers existed in 1948–49 and is expected to continue during the next few years. Michigan education officials estimate that about 2,500 new elementary teachers will be needed in 1949–50 to replace those leaving the profession and that an additional 1,000 will be required to handle increased enrollments, if present class size is maintained. About 1,900 more teachers would be required to reduce the average class size to a ratio of 30 pupils per teacher. The shortage was so acute in some districts during 1948–49 that elementary teachers had to teach one grade in the morning and another in the afternoon. The State Superintendent of Public Instruction reported: "More than 12,000 elementary school children, not counting those in kindergarten, are attending less than full-day sessions. Classes of more than 50 pupils are not uncommon." Furthermore, many of the 4,000 teachers who held emergency certificates in 1948–49 will need to be replaced.

The supply of students from Michigan's colleges completing courses qualifying them for elementary positions was estimated at only about 1,200 in 1949—much less than the number needed. Enrollments in teachers colleges are considerably lower than before the war. Moreover, many of these students do not intend to enter teaching.

During the 1950's, an even larger number of elementary teachers will be needed to handle increased enrollments (grades 1 to 8) owing to the record number of births during the 1940 decade (1947 births in Michigan were about double the 1933 number). On a basis of 30 pupils per teacher, almost 1,500 new teachers would be needed annually to take care of the increase of about 130,000 in enrollments expected in the 3-year period 1952–55. If an attrition rate of 10 percent is assumed, which is slightly lower than the 1948–49 rate, another 2,800 new elementary teachers would be needed annually during this period just to replace those who leave the profession.

At the high school level (grades 9 to 12), there will probably be an oversupply of teachers in 1949–50 in most subject fields, especially English, social science, and men's physical education; however, additional agriculture, commerce, and home economics teachers will be needed. Approximately 300 new high school teachers will be needed annually to handle the 25,000 increase in enrollment expected during the next 3 or 4 years, if we assume a pupil-teacher ratio of 25 to 1. Based on an attrition rate of 10 percent, about 1,300 additional teachers will be needed each year to replace those who are lost to the profession during this period because of deaths, retirements, or transfers to other fields of work. About 2,270 students are expected to complete college courses qualifying them for high school positions during 1949—a considerable increase over the figure of 1,718 for 1948, 629 for 1945, and 1,349 for 1941. Though some of these students do not plan to enter the teaching profession, it is likely that there will be an oversupply in most high school teaching fields in 1949–50.

The demand for high school teachers will increase during the 1950's, as the peak enrollments pass from the elementary grades to the high school. Assuming that there will be an increase in the holding power of the school system and a ratio of 25 students per teacher, over 850 new teachers will be needed each year to take care of the 65,000 increase in high school enrollment that is expected in the 3-year period 1955–57. At the same time (based on an attrition rate of 10 percent) about 1,600 new teachers will be needed

annually as replacements. High school enrollments are expected to continue to mount during the rest of the decade and in the early 1960's.

Earnings

The average salary in Michigan during the 1948–49 school year was estimated at about $3,000 for elementary teachers and $3,600 for high school teachers. Detroit has a single-salary schedule which begins at $2,983; holders of the bachelor's degree may eventually work up to $4,583, while those who have earned the master's degree may reach $4,708. In 1948–49 the average teaching salary in Detroit was $4,381, third highest among the Nation's 20 largest cities.

MINNESOTA

Number of Teachers and Enrollments

Minnesota's public elementary schools had about 12,000 teachers and 327,500 pupils in 1948–49. The public high schools employed about 8,500 teachers for their 172,500 students.

Certification Requirements

Graduation from a 1-year normal training course is required for a certificate valid in rural schools, while completion of a 2-year college course is required for the urban elementary certificate. To obtain a high school certificate, an applicant must hold a bachelor's degree from the Education Department of the University of Minnesota, one of the State teachers colleges, or an educational institution with a similar curriculum. Emergency licenses have also been granted to certain persons who do not satisfy these requirements.

Outlook

There was a severe shortage of elementary teachers in Minnesota in 1948–49, and no substantial improvement in the situation appears likely in the next few years. Elementary enrollments are increasing; on the basis of 30 pupils per teacher, an average of about 400 new teaching positions are likely to be needed annually in the next 2 or 3 years. A large number of new teachers is needed each year just to replace those who leave the profession; approximately 2,300 quit teaching after the 1947–48 school year. The State Department of Education estimates that the attrition rate was about 18 percent in that year. In addition, some of the teachers holding emergency licenses may be replaced by fully qualified personnel. In contrast, the number of students completing courses during 1949 which would qualify them for elementary positions has been estimated at 960. This figure compares with 922 in 1948, 777 in 1945, and 1,337 in 1941.

The demand for elementary teachers will reach its peak near the middle of the 1950 decade. Based on a ratio of 30 pupils per teacher, an average of about 800 additional teachers would be needed each year to handle the increase in enrollment that is expected between 1952 and 1954. Even though the attrition rate declines during this period, this would probably be offset by the increase in the size of the teaching force. Thus, as many annual replacements would be needed as were required in 1947–48. It appears that a total of over 3,000 new elementary teachers is likely to be needed annually during this period.

In contrast to the elementary situation, there is expected to be a surplus of high school teachers in many fields in the fall of 1949. However, in 1949–50 there will probably still be a shortage of persons qualified to teach home economics, agriculture, commercial subjects, and women's physical education. About 870 new high school teachers were hired in 1948–49, mostly as replacements. It is expected that a similar number of new teachers will be needed in 1949–50 to replace those leaving the profession.

The number of persons taking college courses preparing them for high school positions has increased considerably in recent years. Approximately 2,000 students completed courses in 1949 entitling them to standard teaching certificates, as compared with 1,553 in 1948, 1,037 in 1947, 657 in 1945, and 1,217 in 1941. However, some of these students will not enter teaching. A survey by the State Department of Education indicates that about 30 percent of the students who completed teacher-training courses in 1947–48 were not teaching in Minnesota the following year; about 12 percent were teaching in other States, 7 percent were continuing their education, 8 percent were otherwise employed, and 2 percent had married and left the labor force. Nevertheless, the supply of high school teachers exceeds the prospective demand, and there will probably be a surplus in most subject fields during the next 2 or 3 years.

During the late 1950's, as the peak enrollments pass from the elementary grades to high school, there will be an increased need for high school teachers. Based on a ratio of 25 students per teacher, it is estimated that an average of about 300 additional high school teachers will be required each year to take care of the expected increase of over 20,000 in high school enrollments betwen 1954 and 1957. High school enrollments will continue to climb during the early 1960's, though at a slower rate. The expansion of the teaching force will tend to increase the number of new teachers needed yearly for replacements. If the attrition should continue at the same rate as in 1947–48, approximately 1,000 or more new teachers would probably be needed as replacements beginning about 1954.

Earnings

The average teaching salary in Minnesota was about $2,300 for elementary teachers and $2,850 for high school teachers in 1948–49. The State Division of Teacher Personnel reports that in rural schools the median salary was about $215 a month, with one out of 12 teachers receiving less than $180 and one out of seven $250 or more. In cities having a population of over 2,500 about 15 percent of the classroom teachers earned over $4,000 per year; about 36 percent earned from $3,000 to $4,000 per year; only about 18 percent were paid less than $2,400 per year.

Minneapolis had a single-salary schedule under which, in the calendar year 1948, holders of the bachelor's degree began at $2,400 and could work up to $4,400. Those with a master's degree had a minimum of $2,600 and a maximum of $4,600, and holders of the Ph. D. began at $2,800 and advanced to $4,800. In 1948–49, the average salary in Minneapolis was $3,897; only 8 of the Nation's 20 largest cities had higher averages than this. St. Paul also has a single-salary schedule; in 1948, the beginning salary was $2,000 for holders of the bachelor's degree and the maximum salary was $3,500. The minimum salary for those with a master's degree was $2,200 and the maximum was $3,700. Minimum and maximum salaries for holders of the doctor's degree were $2,400 and $3,900, respectively. Duluth's teachers are also under a single-salary schedule. In 1948–49 holders of the bachelor's degree began at $1,800 and could work up to $3,000; teachers with a master's degree started at $2,000 and could work up to $3,200. A cost-of-living adjustment of $852 was added to the scheduled salaries in Duluth in 1948–49.

MISSISSIPPI

Number of Teachers and Enrollments

The public school system had about 15,565 classroom teachers, principals, and supervisors in 1948–49; four-fifths were in rural schools. The elementary schools employed 10,915 teachers for 466,000 pupils; about 5,514 of these teachers and 250,000 of the students were Negroes. Secondary schools had 3,615 teachers and 77,600 pupils; 650 teachers and 17,000 students were Negroes.

Certification Requirements

To qualify for the regular elementary certificate, one needs a minimum of two years' credit from an accredited college, including 8 semester hours in elementary education courses. For the secondary certificate, one must be a graduate from an accredited college or university, with 18 semester hours credit in education courses; 12 semester hours each in English, social science, and physical sciences (including mathematics); and 6 hours in physical education and health. Additional requirements for teaching academic subjects range from 12 hours for a foreign language to 27 hours for science. The minimum age for teacher certification is 18 years.

Emergency certificates may be issued, when necessary, to persons with considerably lower qualifications.

Outlook

Employment prospects for qualified elementary teachers will be excellent over the next few years. Teachers are needed to take care of the increasing enrollments resulting from the high birth rates of the early 1940's, as well as to replace many of the persons teaching on emergency certificates (700 such certificates were issued in 1948–49). Moreover, it is estimated that about 1,325 teachers, or 12 percent of the elementary staff, leave teaching in the State annually and

must be replaced. Slightly over half of the above demands are for Negro teachers. That the supply of teachers is inadequate to meet the demand is indicated by the fact that only 270 white and 389 Negro students were expected to complete preparation for elementary certification in the State in 1949.

Employment of elementary teachers will probably continue to rise for at least the next 6 or 7 years. Enrollments at this level (grades 1 to 8) will increase each year until about 1956–57 when they may be 75,000 higher than in 1948–49. On the basis of 30 pupils per teacher, the increased enrollments would require 2,500 additional teaching positions over the 8-year period. If the replacement rate should remain approximately 12 percent, the number of new teachers needed annually would increase to about 1,600 in the mid-1950's. Even after 1957, when enrollments are expected to decrease somewhat, the total number of new teachers needed annually will probably be in excess of 1,000 for several years.

High school (grades 9 to 12) needs for teachers in the next 3 or 4 years will be primarily as replacements for those who leave the profession, since enrollments are not expected to increase substantially during this priod. The number of replacements needed is estimated at about 400, or 10 percent of the secondary teaching staff. There were a few high school teaching vacancies and about 100 teachers employed on emergency certificates in 1948–49, but the supply for 1949–50 will be sufficient to fill most of the demands. In 1949, teacher-training institutions in the State expected to graduate 1,040 students qualified for secondary school teaching (including 110 Negroes), as compared with 1,047 in 1948 and 687 in 1941. While the supply of teachers appears to be adequate in most fields, it is likely that there will still be a shortage in some special subjects, particularly science, commerce, and home economics.

About 1952–53, high school enrollments and the number of teaching positions needed will begin an upward trend which will persist throughout that decade. By 1959–60, enrollments may be 38,000 higher than in 1948–49; on the basis of a ratio of 25 pupils per teacher, this rise would require some 1,500 additional teaching positions. If the replacement rate for high school teachers in Mississippi remains approximately 10 percent, the number of new teachers needed as replacements for the expanded staff would be about 550 per year in the late 1950's.

Earnings

Elementary and secondary teachers had average annual salaries of $1,125 and $1,775, respectively, in 1948–49. The average salaries for teachers and administrative personnel during 1948–49 were as follows:

	White	Negro
Superintendents	$3,663	$1,720
Principals	3,109	1,816
Vocational teachers	2,492	1,728
Supervisors	2,588	2,194
High school teachers	1,937	1,050
Elementary teachers	1,617	613

MISSOURI

Number of Teachers and Enrollments

Approximately 17,000 teachers were employed in Missouri elementary schools in 1948–49 to teach about 500,000 pupils. The high schools employed about 6,400 teachers for their 150,000 students. Over a fifth of all students and more than a fourth of the teachers were in rural districts.

Certification Requirements

For a 5-year State certificate to teach in junior or senior high school, a bachelor's degree is required. The training must include certain general academic courses; at least 18 semester hours in professional education, of which 5 were in practice teaching; and a specified number of hours (at least 24 in most cases) in the subject-matter field in which the teacher wishes to specialize. Five-year certificates may be converted into permanent certificates after 3 years of satisfactory service.

For a 5-year State elementary certificate, the candidate likewise needs a bachelor's degree, with 18 hours of education including 5 in practice teaching. The course requirements are geared to the elementary teaching level. As in the case of secondary certificates, the 5-year elementary certificate may be made permanent after 3 years of service.

Besides these types of permits, a 2-year certificate is issued for elementary teaching. This is the lowest-grade regular State certificate; to obtain it, one must have completed at least 60 semester hours of college work, including 10 hours of education of which 2 were in practice teaching. This certificate is valid for only 2 years and, in order to renew it, the teacher must complete at least 5 additional hours of college work.

Emergency State certificates are issued to teachers not meeting the above requirements when sufficient fully qualified teachers are not available. These certificates are valid for only 1 year; for renewal, it is necessary to complete 5 more semester hours of college work. In addition, three grades of county certificates are issued either on the basis of examinations in a wide range of subjects taught in elementary schools or to those who have earned credits in similar subject areas at Missouri colleges.

Outlook

This is another State in which a continuing, severe shortage of qualified elementary teachers is expected in the next few years. The number of students completing training for elementary teaching at Missouri institutions in 1949 has been estimated at about 556. This is only a small fraction of the number that will probably be required in 1949–50 to meet normal replacement needs—which in 1948–49 amounted to about 10 percent of the elementary teaching force (or roughly 1,700). Furthermore, a few hundred additional teachers will be needed in 1949–50 to handle expanding enrollments. Because of the personnel shortage, about 1,100 emergency permits had to be issued for elementary teaching in 1948–49; very likely, the number will be similar in 1949–50. Replacement of all emergency teachers with personnel holding regular certificates will be impossible in the near future; however, the State Department of Education anticipates that many such teachers will take additional summer school training each year and thus qualify before long for higher-grade certificates.

Demand for elementary teachers will remain high at least until the late 1950's. Elementary enrollments (kindergarten through grade 8) are expected to keep on increasing until about 1955, when they may be about 125,000 above the 1948–49 level. On the basis of 30 pupils per teacher, this increase would mean a need for about 4,200 new teachers over the 7-year period; between 1952–54, when the greatest influx of pupils is expected, as many as 800 to 1,000 additional teaching positions may be needed yearly. After 1955–56, enrollments will probably decline, and the demand for teachers will once more be limited, in general, to replacements. Assuming that the attrition rate continues to be 10 percent, over 2,000 teachers would probably be needed annually to fill vacancies in the middle and late 1950's. These estimates do not take account of the trend toward consolidation of rural schools, which over the long run, will probably tend to reduce the need for elementary teachers somewhat. Improvement of the roads, especially in the northern part of the State, would greatly facilitate consolidations.

The supply of high school teachers, unlike that of elementary teachers, will probably be more than adequate to meet the demand in most subject fields in the near future. Secondary enrollments are expected to decline slowly till 1951, and replacement needs have recently (in 1947–48 and 1948–49) amounted to less than 7 percent of the teaching force, or not much more than 400 per year. In contrast, the number of secondary teachers completing training at Missouri colleges in 1949 has been estimated at about 1,160, as compared with 940 in 1948 and 1,010 in 1941. Even though about one out of every three graduates of Missouri teachers colleges find employment in other States offering higher salaries, the State Director of Teacher Education and Certification estimated in the spring of 1949 that there would be only about two jobs for every three new secondary teachers in the State in 1949–50. English and social studies are among the fields where the greatest surplus of teachers was anticipated. However, in certain other fields—including home economics, commercial subjects, and music—a continuing shortage of teachers is likely in 1949–50.

About 1951, high school enrollments and teaching staffs are expected to begin a steady upward climb lasting throughout the decade. By 1959, there may be over 50,000 more students in grades 9 to 12 than were enrolled in 1948–49. This means that, over the 11-year period, Missouri school systems would have to create about 2,000 more teaching positions to provide one teacher for every 25 additional students. The most rapid rise in enrollments is anticipated about 1956 to 1958, when the number of new teachers needed annu-

ally may reach 450 (at the 25 to 1 pupil-teacher ratio). Replacement needs are likely to grow also—to about 550 per year by 1959–60—unless the attrition rate is reduced below the 1947–48 figure.

Earnings

Elementary teachers had an average annual salary of about $2,050 in 1948–49; secondary teachers, an average of about $2,900. Both these figures were about $200 higher than the corresponding averages for 1947–48.

Salaries vary widely by size of community, as can be seen from the following table of average salaries of classroom teachers in 1947–48:[8]

Size of district	Elementary	High school
Rural district	$1,273	—
Under 2,500 population	1,480	$2,013
2,500–9,999 population	1,889	2,329
10,000–29,999 population	2,257	2,627
30,000–99,999 population	2,574	2,874
100,000 population and over	3,112	3,896

The 2,800 teachers in St. Louis had an average salary of about $3,550 in 1948–49. The city had a single-salary schedule which started at $2,400. The number of annual increments varied, however, according to the teacher's preparation. Those without a bachelor's degree were permitted $200 increments, to bring their maximum up to $3,800; those with a bachelor's, 9 increments of $200, a $4,200 maximum; those with a master's degree, 10 increments of $200 and 1 more of $100, making their top salary $4,500.

Kansas City teachers had an average salary of about $3,770 in 1948–49. Under the city's single-salary schedule, holders of a bachelor's degree began at $2,400 and might work up to $4,400; teachers with an M. A. degree started at $2,775 and might reach $4,775; for those with a Ph. D., the starting salary was $3,275 and the maximum, $5,275. All these college graduates were allowed 16 annual increments of $125. Teachers not holding college degrees but having 80 or more hours' credit, also started at $2,400 like those with B. A.'s but were allowed fewer annual increments. To advance on the salary schedule, additional training was required every 4 years for teachers without degrees and every 6 years for teachers with degrees. For teachers with less than 80 hours of training, the schedule specified only that $2,400 should be the maximum salary.

MONTANA

Number of Teachers and Enrollments

The 1948–49 enrollment of the public schools of Montana was about 100,000—about 25,000 in high schools (grades 9 to 12) and 75,000 in elementary schools (kindergarten through grade 8). There were about 1,325 teachers in the 182 high schools and 3,442 teachers in more than 1,200 elementary schools. The teachers of the elementary schools were distributed as follows in 1947–48: 926 one-room schools employed 931 teachers; 96 two-room schools employed 192 teachers; 212 city and town school systems employed 2,319 teachers.

Certification Requirements

In 1948–49, the minimum educational requirement for a State certificate for elementary school teaching was graduation from a 2-year normal college which gave specific training in the teaching of elementary school subjects. Teachers trained for secondary school teaching might qualify also for elementary certification by completing necessary training in elementary education courses.

The minimum requirement for junior and senior high school certificates was a degree from a fully accredited 4-year college, with 16 semester hours in education courses plus a major of 30 semester hours and a minor of 20 hours in subjects taught in high schools.

Montana has a new certification law which tends to raise qualifications for certificates. By 1955, 4 years' training will be required of all new teachers, with a fifth year to be completed during the probation period.

Many Montana schools, particularly those in cities, require experience or further training in addition to the minimum certification requirements. On the other hand, emergency certificates are issued when necessary to certain applicants who do not meet the regular requirements. In 1949–50, such permits will be issued only to persons with at least 1 year of training, except in the case of candidates who held emergency permits in 1948–49 and took additional training in summer school.

[8] State Department of Education, 99th Report of the Public Schools of the State of Missouri, school year ending June 30, 1948, pp. 338–339, Jefferson City, Mo., 1949.

Outlook

The teacher recruitment problems which existed in 1948–49 are expected to be carried over into 1949–50. In the former year there was an acute shortage of teachers. Almost 800 of the grade school teachers were considered substandard; about half this number were older teachers who had come back to the field after an absence of 5 to 20 years, and the rest had had less than 2 years' training. Recruitment was particularly difficult in the rural areas, especially where schools were situated in the mountains or out on the prairie, far from any railroad or other means of transportation.

The number of Montana college students who were expected to qualify for the standard elementary certificate in 1949 was only about 130. This falls far short of the number who will probably be needed to fill vacancies left by teachers withdrawing from Montana schools and to teach additional pupils in the lower grades. Unless this deficit can be made up by out-of-State teachers and by substandard teachers who have taken enough training to qualify for a standard certificate, many emergency certificates will have to be issued in 1949–50.

During the 1950 decade, demands for elementary teachers will become even heavier. Enrollments are expected to continue to rise at least until 1959–60. In that year at least 18,500 more children will probably be enrolled in the first eight grades than in 1948–49. If the pupil-teacher ratio were 30 to 1, then this source of employment alone would furnish jobs for over 600 additional teachers during the 11-year interval. The number of teachers dropping out is likely to increase with the size of the teaching staff. Assuming a continuation of the rate of drop-outs which prevailed in 1947–48 (about 9 percent), over 350 such vacancies would probably occur each year during the late 1950's.

In the high schools, on the other hand, the shortage of teachers was just about over in the spring of 1949. The State Department of Public Instruction anticipated an oversupply of high school teachers in the 1949–50 school year, except in certain fields such as vocational courses, music, and commercial subjects, where the supply was still inadequate. The Montana teacher-training institutions alone expected to turn out 265 new high school teachers in 1949. The number of new teachers taken on will probably be well below this figure. Assuming that drop-outs are about as numerous as in the preceding year, then approximately 175 vacancies would have to be filled in 1949–50. Only a few additional teachers will be needed to handle the expected small increase in enrollments. The new teachers employed will probably be better trained than those who were taken on in the recent past.

Employment of high school teachers will tend to grow over the long run. Enrollments are expected to increase slowly in the near future but to rise more rapidly for a few years after 1954, when the large number of children born in the early war years reach high school age. In 1957–58, secondary school enrollments are likely to be at least one-third larger than in 1948–49; if one teacher is taken on for every 25 additional pupils, the resulting expansion in staff would amount to almost 300 over the 9-year period. After about 1958, enrollments may fall off slightly and temporarily, but they will increase again in the 1960's. It is possible that the proportion of teachers who have to be replaced each year may decline; however, if it should continue at the 1948–49 figure of about 13 percent, then about 200 or more teachers would be needed annually as replacements in the late 1950's.

The estimates of future enrollments and demand for teachers given above assume a continuation of the prewar pattern of out-migration. They do not take into account the reclamation project which has been authorized in the State. If this program cuts down out-migration substantially or brings about in-migration, there would be greater increases in enrollments and the demand for teachers would be raised accordingly.

Earnings

The estimated average annual salary for secondary classroom teachers in 1948–49 was $3,210; for elementary teachers, $2,600.

The following is a basic minimum salary scale suggested for use, with an added cost-of-living adjustment, by the Montana Education Association:

Educational preparation	Annual salary		
	Beginners	Increments	With full credit for experience
2 years	$2,100	10 @ $60	$2,700
3 years	2,250	10 @ 75	3,000
Bachelor's degree	2,400	12 @ 90	3,480
Master's degree	2,550	15 @ 105	4,125

According to the State Department of Education, schedules based on this standard had been adopted for 1949–50, by over 85 percent of the schools in Montana.

Many school districts pay salaries above the suggested basic schedule. For example, salaries in Billings will be $250 higher in 1949–50 than those provided by this schedule and, in Great Falls, $350 higher.

NEBRASKA

Number of Teachers and Enrollments

The public elementary schools in Nebraska employed about 9,100 teachers to instruct 160,000 pupils during the 1948–49 school year. Over half these teachers were in one-room rural schools.

During the 1948–49 school year the high schools enrolled about 63,000 students and employed about 3,400 teachers. A large proportion of the secondary teachers were in small high schools; about two-thirds of these schools had fewer than 100 pupils. The distribution of high schools by size of the student body in 1948–49 was as follows:

Number of students enrolled	Number of high schools
25 and under	35
26–50	151
51–100	153
101–150	73
151–250	55
251 and over	43
Total	510

Certification Requirements

Graduation from a 4-year college course is required for the high school teacher's certificate. At least 18 semester hours in education, including 3 hours of student teaching, must be completed. A total of at least 15 semester hours of college credit must be earned in the major subject to be taught. However, only 9 semester hours of college work are required for a minor teaching field if 3 high school courses have been taken in that subject.

A 1-year certificate to teach in rural elementary schools may be granted to persons who have completed the teacher-preparation course in an approved high school. However, under a law enacted in 1949, holders of this type of certificate must obtain additional training each year, before their certificates may be renewed. At least 9 semester hours of college work, including 3 hours in education, are required for each renewal. Two years of college work are required for the town and city elementary certificate. Emergency teaching certificates are granted when school authorities are unable to find fully qualified personnel.

Outlook

The severe shortage of elementary teachers which existed in 1948–49, especially in the lower grades in town and city schools, is expected to continue for several years at least. About 1,250 new teachers had to be hired in Nebraska in 1948–49 to replace those who left teaching in the State or to fill new positions created by increasing enrollments. About the same number will probably be needed annually for the next few years, unless the present replacement rate of around 15 percent drops, as it may if jobs other than teaching become less plentiful. In spite of the great need for elementary teachers, only about 640 persons completed college courses, during the year ending June 1949, which prepared them to teach at this level; this compares with 892 in 1941. To provide the necessary teachers for the immediate future, many with only the high school normal training courses would have to be hired and possibly also many who qualify only for emergency certificates (2,400 such certificates were issued in 1948–49).

Employment of elementary teachers is expected to rise until the late 1950's. Because of the high birth rates during the 1940 decade, enrollments will continue to increase in the elementary schools until about 1956–57, when they may be about 27,000 greater than in 1948–49. The number of additional teachers that will be required to take care of the increased enrollments will be influenced by the fact that the State has

many small schools which will be able to take care of additional students without increasing the staff. Moreover, the 1949 session of the legislature passed a bill to encourage consolidation and reduce the number of small schools; this may eliminate a few positions. Nevertheless, it appears that at least 800 new elementary teachers will be needed between 1948–49 and 1956–57 just to take care of the additional pupils expected to enroll. In addition, many elementary teachers will be needed to make up for losses to the profession owing to death, retirement, or transfer to other fields of work. If the replacement rate should continue at the 1948 level of 15 percent, the number of new teachers needed annually in the mid-1950's will be about 1,300.

The demand for high school teachers in the next few years will be largely for replacements inasmuch as enrollments at that level will be decreasing somewhat. In 1948–49 about 400 new high school teachers were hired in Nebraska. About 750 students completed preparation for teaching in the State at this level in 1948, and in June 1949 about 800 students were expected to complete such training. Though many of these persons never enter the teaching profession, an oversupply of high school teachers is developing in some subject fields. However, there were several fields in which additional teachers were especially needed in 1948–49: home economics, music, and commercial work.

Beginning about 1955 there will be an increased demand for high school teachers as the peak enrollments pass into high school from the elementary grades. Although some of Nebraska's small high schools will be able to enroll additional students without increasing the staff, it appears that in the last 3 or 4 years of the 1950 decade about 50 new high school teachers will be needed each year to take care of the annual increase of 2,500 to 3,000 in enrollments expected in that period. If the replacement rate for these teachers is about 10 percent, this would mean that nearly 400 teachers would be required annually as replacements, making the total demand about 450 per year.

Earnings

Salaries averaged about $1,900 for elementary teachers and $2,600 for high school teachers in 1948–49, according to a survey made by the Nebraska Education Association. The distribution of teachers by salary level was found to be as follows in 436 school districts:

Salary	Number of teachers	
	Elementary	High school
$1,500 and under	73	5
$1,501–$2,000	1,462	24
$2,001–$2,500	1,065	472
$2,501–$3,000	331	1,005
$3,001–$3,500	220	402
$3,501 and over	151	379

The city of Omaha during 1948–49 had about 1,100 teachers on a single-salary schedule which began at $2,250 for those without a degree and went up to $3,780 for holders of the bachelor's degree.

Lincoln also has a salary schedule based on preparation rather than position. The bachelor's degree is required of new applicants and the beginning salary is $1,900, with increases to $3,050 for those holding only this degree. Teachers with the master's degree start at $2,100 and may advance to $3,300. To advance on the schedule, evidence of professional growth is required every 6 years.

NEVADA

Number of Teachers and Enrollments

Nevada has the smallest school enrollment and teaching staff of any State. The public schools of Nevada employed about 1,200 classroom teachers, principals, and supervisors to teach approximately 28,000 pupils in 1948–49. About 75 percent of the students and 70 percent of the teachers were in the elementary schools. Because of a large rural population, over half the elementary schools are one-teacher schools.

Certification Requirements

Minimum educational requirement for a second-grade elementary certificate, valid for 3 years, is graduation from a 1-year course at the Nevada State Normal School. Second-grade certificates, valid only for 2 years, may be issued to graduates of standard 1-year normal courses in institutions other than the University of Nevada. Neither of these types of certificates is renewable. Minimum requirement for a first-grade elementary

certificate is graduation from a 2-year normal course, equivalent to that given at the Nevada State Normal School, or graduation from a liberal arts course or a science course where the professional training includes 18 semester hours of education, 4 of which are in methods of teaching elementary school and 4 in practice teaching in elementary grades.

For the junior high school certificate, valid in grades 7, 8, and 9 only, one must have completed 3 years of college work including 15 hours of education. Ten of these hours must be training specifically qualifying for teaching in the junior high school and 4 must be practice teaching in the 7th, 8th, or 9th grades.

To qualify for the high school certificate, valid for 4 years, it is necessary to hold a bachelor's degree and to have earned 18 semester hours credit in education, 10 hours of which must be courses in the secondary field and 4 hours must be in practice teaching. Two years of successful teaching experience may be substituted for practice teaching. Graduates of the University of Nevada who have completed the courses prescribed by the School of Education are granted high school certificates valid for 5 years.

Examinations in Nevada School Law and Constitutions of the United States and the State of Nevada are required for all certificates. Emergency certificates are issued to applicants not meeting all the regular requirements.

Outlook

The Nevada Department of Education expects that it will be possible to fill practically every teaching position in the State in 1949–50. Additional teachers will be required to take care of an unusually large increase in elementary enrollments caused by the high birth rates of the early 1940's and a large amount of in-migration. However, recent improvement in the retirement system is expected to render teaching positions more attractive than in former years. Thus, the number of elementary teachers leaving Nevada schools during and after the 1948–49 school year may be smaller than the 200 or so who left the preceding year. Also, the Department of Education anticipates that more elementary teachers will be drawn from other States. This should help to compensate for the smaller supply available from Nevada institutions—which expected only 18 students to complete courses qualifying them for elementary certificates in 1949, compared to 34 in 1948. It seems likely, however, that some positions will have to be filled with emergency teachers in 1949–50, as in the preceding year when 57 emergency permits were issued.

In the long run, a greater number of elementary teachers may be needed annually as a result of rapid enrollment increases. Migration into the State is expected to continue for the next several years, and a larger proportion of the migrants will probably be children of grade school age than of high school age. Another factor in increasing enrollments is the high birth rates of the postwar years; the children of the peak year of births (1947) will be entering the schools about 1953. This rise in elementary enrollments will probably continue until about 1956–57, when nearly 13,000 more children may be enrolled in grades 1 to 8 than in 1948–49. If the pupil-teacher ratio were 30 to 1, then this source of employment alone would furnish jobs for more than 400 elementary teachers in the course of 8 years. The expansion in staff will tend to bring with it an increase in the number of teachers dying or leaving for other reasons each year; on the other hand, this tendency may be more than offset by efforts to reduce the current high rate of personnel losses (approximately 25 percent of the total elementary teaching staff in 1947–48).

In the high schools, the supply of teachers is expected to be adequate in 1949–50. Positions which need to be filled will be mostly those vacated by teachers leaving Nevada schools. In 1948–49 an estimated 50 replacements were needed; a smaller number will probably be needed in 1949–50. Only seven college students (compared with 38 in 1941) were expected to graduate in Nevada in 1949 with qualifications for a regular high school certificate. However, Nevada high schools should be able to obtain more out-of-State teachers in 1949–50 than the preceding year; the new retirement system is expected to attract recruits, and teacher-training institutions in many other States have produced more than enough high school teachers to fill positions in the country as a whole.

Beginning in 1950, the number of high school students enrolled will probably increase, first gradually and later rapidly until by 1959–60 there may be over 5,000 more youths in grades 9 to 12 than 10 years before. If one additional teacher were hired for each 25 of these pupils, staff additions would total at least 200 over the 10-year period. Whether this expansion in staff will lead to an increase in the total number of vacancies which have to be filled each year will depend on how far the drop-out rate is reduced from the current high figure (about 14 percent in 1947–48).

Earnings

The minimum annual salary for the State was $2,400 as of 1948–49. The average salary for secondary classroom teachers in that year was estimated at $3,250 and for elementary teachers at $2,900.

The single-salary schedule in effect in 1948–49 in Las Vegas was as follows:

Educational preparation	Annual salary		
	Minimum	Increments	Maximum
Less than bachelor's degree	$2,400	7 @ $60	$2,820
Bachelor's degree	2,600	10 @ 100	3,600
Master's degree	2,800	10 @ 100	3,800

NEW HAMPSHIRE

Number of Teachers and Enrollments

About 2,900 classroom teachers, principals, and supervisors were employed in 1948–49 in the public schools of New Hampshire to teach approximately 70,000 pupils. About three-fourths of the pupils and nearly two-thirds of the teachers were in elementary schools. About 400 of the teachers were in Manchester and Nashua.

Certification Requirements

Minimum educational requirement for a standard certificate is the completion of a 4- or 5-year teacher preparation course in a standard college-level institution. Training must include 45 semester hours of professional education courses for the elementary certificate or 21 semester hours for the high school certificate. For either certificate, 6 of these hours must be supervised student teaching. However, 3 years of successful teaching experience can be substituted for student teaching provided the last year of teaching has been within the preceding 3 years. There are certain additional academic requirements for the high school certificate in the subject fields to be taught, such as 18 semester hours in major field of teaching and at least 6 semester hours in any subject taught.

Emergency certificates are issued when necessary, to applicants who do not meet regular requirements.

Outlook

The shortage of fully qualified elementary teachers is likely to be more severe in 1949–50 than in the previous year. New Hampshire training institutions expected only 24 students to complete courses in 1949 qualifying them for regular elementary certificates. This is only a small fraction of the number needed just to replace teachers leaving the schools each year because of death, retirement, or other reasons. If the replacement rate for drop-outs is the same as in 1948–49, 12 percent (around 200) of the elementary teaching staff will need to be replaced. Moreover, additional teachers will be sought to handle new classes formed to take care of the increasing enrollments in the lower grades. Instead of being able to replace those who were teaching on emergency permits in 1948–49 (when about 300 such permits were issued), the elementary schools will probably have to hire more teachers not meeting regular certification requirements.

Demands for elementary teachers will doubtless become even heavier in future years. Nearly 19,000 more children may be enrolled in grades 1 to 8 by 1958–59, when the peak in elementary enrollments is expected, than were in the schools in 1948–49. Assuming a ratio of one teacher to every 30 pupils, this would call for the employment of about 630 additional teachers over the 10-year interval. As the size of the teaching staff grows, more vacancies will probably occur each year owing to deaths, retirements, or other reasons. If the annual attrition rate continues at 12 percent, the number of drop-outs will probably increase to about 300 annually in the latter part of the 1950's.

Some shortages of high school teachers are anticipated in 1949–50, but not the year after—except, possibly, in a few special subjects. It was expected that 238 students would graduate from high school teacher-training courses in 1949. The supply from this source and out-of-State sources may provide more applicants than the number

needed to replace teachers who leave New Hampshire high schools. This number, in the previous year, was estimated to be about 150 or 15 percent of the high school teaching staff; about the same number will probably be needed in 1949–50. Therefore, part of the supply should be available for replacing some of the emergency teachers who were employed in 1948–49 (about 200 emergency certificates were issued in that year). Home economics, agriculture, and commerce are expected to be the greatest shortage fields. If the supply of high school teachers keeps up at the 1949 level, the shortages will probably disappear in most subject fields in another year. Enrollment increases in the early 1950's will be very small and only a few extra teachers will have to be hired for additional classes.

An increasing number of high school teachers will be needed as the expanded enrollments of the elementary schools pass into the higher grades during the 1950 decade. As many as 4,700 more pupils may be attending high school by 1958–59 than were enrolled 10 years earlier. If one teacher were hired for each additional 25 pupils, this would mean about 190 staff additions over that period. If the rate of teacher withdrawals continues to be about 15 percent, the number of replacements needed will be about 175 per year during the last part of the 1950 decade.

Earnings

The median salary for classroom teachers in 1948–49 was estimated at $2,760 for secondary teachers and $2,280 for elementary teachers. Minimum salaries of $1,700 for the lowest certificate recognized and $1,800 for teachers with a bachelor's degree have been established by the State Board of Education.

The single-salary schedule for Nashua for 1948–49 is shown below. A cost-of-living adjustment of $260 was added to scheduled salaries.

Educational preparation	Annual salary		
	Minimum	Increments	Maximum
No degree [a]	$2,012	3 @ $100 16 @ 50	$3,112
Bachelor's degree	2,012	2 @ 100 1 @ 200 18 @ 50	3,312
Master's degree	2,312	2 @ 100 1 @ 200 18 @ 50	3,612

[a] Four years' preparation now required of all new applicants.

NEW JERSEY

Number of Teachers and Enrollments

The 1948–49 public school enrollment was about 670,000, and the instructional staff numbered about 27,000. Approximately 60 percent of the teachers and pupils were in elementary schools.

Eighty-five percent of the teachers were in urban communities. The teaching staffs in the largest urban school systems ranged from around 500 in Bayonne to 2,100 in Newark.

Certification Requirements

The limited elementary certificate for all grades from kindergarten to 8 is issued to candidates who meet the general requirements, with respect to health, moral character, and other matters and who have a bachelor's degree from an accredited 4-year college with a teacher-training program equivalent to that of the New Jersey State Teachers colleges. Approximately half of the degree program must be in specified subjects taught in elementary school; approximately one-third in general background courses of designated types; and approximately one-sixth in basic professional background courses in education, psychology, and related subjects. The program must also include 150 clock hours of approved student teaching.

For a limited secondary certificate entitling the holder to teach specified subject fields in grades 7 to 12, a bachelor's degree is required. The course of study must include at least 30 semester hours in certain general background courses; a minimum of 18 semester hours of professional courses; preparation in two teaching fields, one with 30 semester hours and one with 18 semester hours; and 150 clock hours of approved student teaching.

Comparable detailed requirements are made for certificates to teach special subjects (such as art, business education, health, and industrial arts) in the elementary and secondary schools.

A limited certificate remains valid for 5 years and may be made permanent on evidence of 3 years of successful experience in New Jersey in the type of public school work for which the certificate was issued.

Various types of substandard certificates are issued to certain people who do not meet these qualifications. The provisional certificate can be kept valid by completing each year a minimum of 6 semester hours toward the requirements for a standard certificate. The temporary limited certificate is issued for the most part to teachers recruited from those who had left teaching. This certificate terminates at the end of the year unless renewed on recommendation of the employer. The emergency certificate is issued upon recommendation of the county superintendent and terminates at the end of the year unless he reaffirms that the emergency continues.

Outlook

The shortage of elementary teachers will be worse in this State in 1949–50 than in the preceding school year. According to the New Jersey Department of Education, the unfilled needs in that year were as follows:[9]

To replace teachers with substandard certificates	1,117
To replace temporary substitute teachers	338
To fill vacant positions	11
To reduce oversize classes	323
To provide additional auxiliary services	113
Total	1,902

It should be noted that several hundred of the teachers with substandard permits hold provisional certificates which they can keep valid by earning 6 semester hours credit each year; many of these teachers will probably not be replaced. On the other hand, additional teachers will be needed to fill vacancies owing to deaths, retirements, and withdrawals, and to handle the anticipated increase in enrollments. The Department predicts that, even if the schools retain all teachers on substandard certificates and all temporary substitutes, there will still be a need for 1,672 elementary teachers in the fall of 1949. It also estimates that the available supply of fully qualified teachers, including not only New Jersey trainees but also those who may be recruited from outside the State, will amount to only 705, less than half the number needed.

Elementary enrollments are expected to rise rapidly until 1955–56. Allowing one teacher for every 30 additional pupils expected and estimating the annual replacement need at 1,079, the Department calculates that the number of new teachers needed yearly will average 1,873 during the period 1949–58. The peak demand will come in the early 1950's, when enrollments are rising most rapidly. Needs will dwindle after 1956, when enrollments begin to decline and teachers are needed only to fill vacancies.

To meet the estimated average yearly need for 1,873 new teachers, the Department suggests annual quotas from the following sources:

State teachers colleges	1,100
Other teachers colleges and liberal arts colleges	250
Teachers migrating to New Jersey from other States	175
Former teachers returning	100
High school teachers retrained and transferred to elementary grades	200
Other sources	48

The quota suggested for the State teachers colleges would necessitate a three-fold increase over the number of graduates trained for elementary work in recent years; the Department recommends that the number of students admitted annually for training in elementary work be increased to 700 and that an additional 400 be trained for both elementary and high school teaching.

In the high schools, an oversupply of teachers is developing in many subject fields. For the next few years, the demand for new secondary teachers will arise primarily from personnel losses owing to death, retirement, or other causes. The Department of Education estimates that about 515 new teachers will be needed in 1949–50 to make up for such losses (after allowing for the fact that high school enrollments are declining and that some vacancies will not have to be filled). Though there were still several hundred high school teachers employed on provisional or other substandard certificates in 1948–49, it was anticipated that many of these teachers would complete the additional courses needed to keep their certificates valid and would not need to be replaced. Thus, the supply of 1,140 new high school teachers which the Department expected would be available in the fall of 1949 (from New Jersey training institutions and other sources) will probably be more than enough to meet the over-all demand. Surpluses of teachers are anticipated in some fields, particularly English, social studies, and men's physical education. However, 1949–50 will probably see continued

[9] *How Many Teachers Will New Jersey Need During the Next 10 Years?* by Robert H. Morrison, Assistant Commissioner for Higher Education, New Jersey State Department of Education, March 31, 1949.

shortages in certain special fields, including home economics, physical education for women, music, and art. Teachers unable to find high school positions may find employment in elementary schools after a summer of retraining; summer session classes in the State teachers colleges will be available for this purpose.

High school enrollments are expected to decline until the mid-1950's and then show a decided increase in the last 3 or 4 years of the decade. Annual teacher requirements will therefore be much higher in the late 1950's than in the early part of the decade, when personnel will be needed only as replacements. Taking the 9-year period from 1949 to 1958 as a whole, the Department of Education anticipates an average annual need for about 664 new secondary teachers. According to the Department's estimates, it would be possible to meet this need even if there were a great reduction in the number of students specializing in secondary education at the State teachers colleges. Unless the number is reduced, there will be a continuing surplus of secondary teachers. The Department recommends that only about 200 students be admitted for specialized training in high school teaching each year, though 400 others should receive both secondary and elementary training. If these recommendations are carried out, it should be possible to meet the present emergency at the elementary level and, later, provide sufficient high school teachers to handle expanding high school enrollments.

Earnings

A State-mandated minimum salary of $2,200 for the academic year (which must be 180 days) goes into effect September 1, 1949.

The minimum and maximum salaries for teachers with bachelor's degrees provided by the salary guides in the State's largest school systems were as follows in 1948–49:[10]

System	Number of teachers	Minimum salary	Maximum salary	Number of steps
Newark	2,108	$2,600	$4,600	12
Jersey City	1,360	2,600	5,000	8
Paterson	768	2,000	4,500	17
Elizabeth	620	2,000	4,000	14
Camden	594	2,000	3,650	12
Trenton	588	2,500	4,800	—
Bayonne	513	1,800	4,350	16

NOTE—Newark teachers had an average annual salary of $4,423 in 1948–49. The city ranked second among the Nation's 20 largest cities in this respect.

NEW MEXICO

Number of Teachers and Enrollments

New Mexico has a larger number of school-age children in proportion to the total population than any other State in the Union: in 1947, it had about 285 children, aged 5 to 17, per 1,000 population. Public school enrollments totaled approximately 142,000 in 1948–49, including about 118,000 elementary pupils and 24,000 high school youths. Instructional staffs totaled 3,000 in the grade schools and 1,400 in the high schools. Nearly three out of every four teachers were in rural schools. The largest of the urban school systems, that of Albuquerque, had a staff of about 250 classroom teachers in 1948–49.

Certification Requirements

Minimum educational requirement for the professional elementary certificate is 2 years of college work. This must include 30 hours in certain specified academic subjects and 10 hours of professional education courses, 2 of which must be observation and practice teaching. To obtain the "master" teacher's elementary certificate one must be a graduate of an approved 4-year college course, with 34 semester hours credit in certain specified academic subjects and 18 hours in education courses, 4 of which must be in supervised teaching.

The requirement for the junior or senior high school certificate is graduation from a 4-year college course, with 24 semester hours in a major subject, 15 in a minor subject, and 18 in education courses including 4 in supervised teaching.

Emergency certificates are sometimes issued to certain applicants who do not meet the above requirements.

Outlook

The shortage of elementary teachers which developed during and since the war will probably continue in the near future. Most of the demand for teachers in 1949–50 will probably be created by deaths, retirements, and losses of personnel for other reasons. It was estimated that in 1948–49 about 550 teachers were needed as replacements; the number will probably be about the same in 1949–50. Others will be needed for new classes created to take care of expanding enrollments. A few will be needed to take the places of some of the emergency teachers (about 100 emergency permits were issued in 1948–49). One source of supply is the 212 New Mexico college students who were expected to complete requirements for the elementary certificate in 1949. However, the number of applicants from other States may be larger than the number from New Mexico; in 1948–49, many more new certificates were issued to out-of-State applicants, chiefly from Oklahoma and Texas, than to applicants from New Mexico. Nevertheless, the total supply of fully qualified elementary teachers will probably not be large enough to meet all the demands.

Rising employment of elementary teachers is likely to occur in the years that follow. Enrollments in grades 1 to 8 will probably not reach their peak until about 1958–59, when 42,000 more children may be enrolled than in 1948–49. The elementary teaching staff would be larger by 1,400 teachers if one teacher were hired for every 30 additional pupils during the 10-year interval. An even greater source of job opportunities will be the openings created by deaths, retirements, and other withdrawals. If the attrition rate continues at around 18 percent, as in 1947–48, the number of replacements needed yearly would increase to almost 800 by the time the peak enrollment is reached. However, the rate is not likely to continue at such a high level; if it should drop to 10 percent, the number of teachers needed at the peak would be about 450 per year.

Many facts point to an oversupply of high school teachers in 1949–50 and the following 2 or 3 years. It was estimated that 320 New Mexico students would qualify for standard high school teaching certificates in 1949, and applicants from out of the State may again outnumber applicants from New Mexico as they did in 1948–49. The demand for teachers will, no doubt, be far below the supply. Enrollments in grades 9 to 12 will probably decline, so that almost no teachers will be needed for new positions; in general, demand will be limited to replacements for those who leave the profession in the State. It has been estimated that, in 1948–49, about 200 teachers were needed for this purpose and the same number will probably be required in 1949–50. There is likely to be keen competition for nearly all jobs especially in the social science, English, and men's physical education fields.

In the long run, greater numbers of high school teachers will be needed. Beginning about 1952–53, secondary enrollments will have an upward trend which will continue throughout the rest of the decade. By 1959–60, perhaps 11,000 more youths will be enrolled in high school than 11 years before. Assuming a pupil-teacher ratio of 25 to 1, about 440 new teachers would have to be taken on to handle the additional pupils. The demand for teachers as replacements for those who die, retire, or withdraw for other reasons will also tend to rise. If the rate of withdrawal should continue at the 1947–48 figure of 14 percent, then annual withdrawals would produce about 250 vacancies in the late 1950's. However, this rate is likely to drop.

Earnings

The average salary for 1948–49 was estimated at $3,550 for secondary classroom teachers and $2,950 for elementary teachers in the State as a whole.

The basic salary schedules in effect in Albuquerque and Santa Fe in 1948–49 were as follows:

Educational preparation	Annual salary		
	Minimum	Increments	Maximum
ALBUQUERQUE			
Bachelor's degree	[a] $2,400	[b] 12 @ $100 5 @ 60	$3,900
Master's degree	[a] 2,600	[b] 12 @ 100 5 @ 60	4,100
SANTA FE [1]			
Bachelor's degree	2,400	20 @ 60	3,600
4½ years	2,460	20 @ 60	3,660
4⅔ years	2,520	20 @ 60	3,720
Master's degree	[a] 2,600	1 @ 220 19 @ 60	3,960

[1] Figures given are exclusive of cost-of-living adjustment of $240 added to scheduled salaries in 1948–49.

[a] Actual beginning salaries in 1948–49 were $2,640 for teachers with bachelor's degrees, and $2,840 for those with master's degrees.

[b] Additional training is required every 5 years to advance on the schedule.

[10] *New Jersey Teachers' Salaries*, 1948–49 as reported to the Committee on Educational Research. New Jersey Educational Review, October 1948.

NEW YORK

Number of Teachers and Enrollments

Approximately 76,000 teachers were employed in the New York public school system in 1948–49, according to estimates from the State Education Department. The elementary schools (kindergarten through grade 8) had about 49,000 teachers for their 1,355,000 pupils; the high schools (grades 9 to 12) had about 27,000 teachers for 560,000 students. Slightly over two-fifths of all the State's public school teachers were employed in New York City.

Certification Requirements

For a permanent certificate in New York elementary schools, one must have a bachelor's degree, with at least 36 semester hours in approved education courses. This latter requirement is one of the highest made by any State. The 36 semester hours in elementary education must include at least 12 to 15 hours in observation and practice teaching, 8 to 12 hours in teaching methods and materials; 6 to 10 hours in psychology, and 2 to 6 hours in the history, principles, problems, or philosophy of education.

The requirements for permanent certificates to teach academic subjects in secondary schools are likewise among the highest made by any State. A bachelor's degree (or equivalent preparation) plus 30 semester hours of approved advanced courses are required. The training must include at least 18 semester hours in approved education courses and the following minimum semester hours in the subject fields to be taught: 15 for mathematics; 18 for English, a foreign language, history, biological sciences, or physical sciences; 30 for the romance languages (any two), classical languages, social studies, or general science. For all fields except English and the sciences, the specified requirements assume at least 2 units of high school credit in the subject; candidates without such credit must complete 6 additional semester hours of college work in the field. To teach a modern language, a candidate must pass a written examination, unless he has an M. A. degree in that language; for permanent approval as a language teacher, he must pass an oral examination.

Comparable, detailed requirements are made for certificates to teach special subjects (such as art, music, home economics, or physical education) in either elementary or secondary schools, and industrial arts, trades, or technical subjects offered in vocational schools.

Temporary certificates are issued to applicants not meeting all the regular specifications, when fully qualified candidates are not available.

Outlook

The total number of teaching positions in New York's elementary schools will probably increase each year until the mid-1950's. Elementary enrollments (kindergarten through grade 8) are expected to grow until about 1955, when they may be more than 400,000 greater than in 1948–49, according to estimates by the State Education Department which are described as conservative.[11] The Department further estimates that the number of elementary teachers, supervisors, and principals needed will increase by about 14,000 in the 6-year period from 1948–49 to 1954–55. In the late 1950's, enrollments will decline, but the expanded teaching force will tend to bring with it a corresponding expanded need for personnel to replace those dying, retiring, or withdrawing from the teaching force. If an attrition rate of 6 percent is assumed, the number of elementary teachers needed annually as replacements would probably average about 3,600 or 3,700 in the last half of the decade, as compared with about 2,900 or 3,000 in the next couple of years. In addition, qualified teachers will be needed in the near future to replace some of the holders of temporary certificates; according to an estimate by the New York State Teachers Association, about 1,700 such certificates were issued for elementary teaching in 1948–49, mostly in rural areas where the personnel shortage is particularly acute.

The supply of fully qualified, new elementary teachers is expected to fall far short of the needs, at least in the next couple of years. The number of people completing training for elementary teaching in 1949 in all New York colleges, except New York University and Columbia's Teachers College, has been estimated at only 1,680, and not all these graduates will enter teaching in New York. Though the State teachers colleges will have somewhat larger graduating classes in 1950 than in 1949, no end to the employment of teachers with only temporary certificates is yet in sight.

[11] Soper, Wayne W., *How Many Public School Teachers Does New York State Need?* The State Education Department, Albany, New York, April 25, 1949, pp. 12–14.

In contrast to the shortage of elementary teachers, an oversupply is anticipated in most high school teaching fields, at least in the next couple of years. Enrollments in the secondary schools have recently been decreasing, and they will probably continue to do so until about 1951. The demand for new high school teachers will therefore be limited largely to replacements during this period; on the basis of a 6 percent attrition rate, about 1,500 would be needed annually in the next couple of years to take the place of teachers dying,, retiring, or withdrawing from the profession. In contrast, the number of people completing training for secondary school teaching in New York in 1949 is estimated at approximately 3,380, not counting graduates of New York University or Columbia's Teachers College. The competition for jobs is likely to be especially great in such fields as English, social studies, and men's physical education. On the other hand, 1949–50 may see a continued shortage of teachers in a few fields, such as home economics and vocational agriculture.

Expanding employment opportunities are expected in secondary schools after 1952. About that time, high school enrollments will begin to increase, and they will have an upward trend into the 1960's. According to estimates by the State Department of Education, they may be about 200,000 higher in 1959–60 than at the low point reached early in the decade. The Department's estimates also indicate an average annual need for about 900 additional high school teachers, supervisors, and principals during the last 7 years of the decade. The number of teachers needed annually as replacements, with an attrition rate of 6 percent, would probably average about 1,600 or 1,700 during this period and might be as high as 1,900 by 1959–60.

Earnings

Median annual salaries of classroom teachers outside New York City in 1948–49 were about $2,725 in elementary schools and $3,248 in secondary schools. Only 25 percent of the elementary and 5 percent of the secondary school teachers made less than $2,400. New York City salaries for classroom teachers in 1948–49 averaged $4,630—higher than in any large city in the country.

Under the State minimum salary schedule in effect in 1948–49, salaries started at $2,000 in districts with eight or more teachers and less than 100,000 population (except in Nassau and Westchester Counties); at $2,200 in those with 100,000 to 1,000,000 population and all districts in Nassau and Westchester Counties; and at $2,500 in still larger districts (that is, New York City). Annual salary increases are provided, but at specified intervals teachers may be required to meet certain qualifications and be moved to a higher promotional level to receive further increments. The maximum salaries provided for those with less than a master's degree under the State schedule were $4,100, $4,510 and $5,125, respectively, in districts of the three sizes specified above. Teachers holding master's degrees or having 30 semester hours of graduate credit are entitled to a salary differential of $200.

In rural districts employing less than eight teachers, the minimum rate for beginners is $2,000 a year. The State law makes no provision either for higher rates for teachers possessing graduate degrees or for automatic yearly increases in these districts.

NORTH CAROLINA

Number of Teachers and Enrollments

The public elementary school system employed about 20,000 classroom teachers, principals, and supervisors for the 692,000 pupils enrolled in the 1948–49 school year. High schools employed nearly 7,000 teachers; approximately 170,000 pupils were enrolled. The high school teaching force includes about 400 home economics teachers and 100 trade and industrial subjects teachers. About one-fourth of all the public school teachers were in schools for Negroes. There were under 600 one-teacher public schools in operation, with average daily attendance of nearly 16,000 pupils, about 12,000 of whom were Negroes.

Certification Requirements

Graduation from a standard 4-year college is required for a class A elementary or high school certificate; the high school certificate is required for grades 9 to 12 and may be used in grades 7 and 8. For the class A elementary certificate, one requirement is 21 semester hours of professional education; for the class A high school certificate, 18 semester hours. As of July 1, 1950, there will be some changes in the specific requirements. Emergency teachers who do not meet

regular requirements are employed when necessary.

Outlook

The shortage of qualified elementary white teachers in the State—evidenced by the approval in 1948–49 of about 1,200 teachers not meeting regular requirements—is expected to continue for at least the next few years. Greatest shortage is in the rural, white, one-teacher schools. Over 500 new teachers are needed each year to replace those who leave the profession in the State. Increasing enrollments resulting from high birth rates (1947 births were 30,000 above the 1940 figure) will require additional teaching positions, and many of the teachers now employed on emergency certificates will be needed to be replaced. There would be further need for teachers if the 1948–49 pupil-teacher ratio of nearly 35 to 1 were reduced to the more desirable 30 to 1 ratio. The demand for white elementary teachers is far in excess of the supply; training institutions in the State prepared only 238 white graduates for elementary teaching in 1949. The supply of Negro teachers exceeds the demand in most localities; 456 graduated from training institutions in the State in 1949. The replacement rate is much lower for Negro than for white teachers and considerable competition for positions is expected during the next few years.

Employment of elementary teachers will have an upward trend along with enrollments, until about 1957–58 when about 159,000 more students may be enrolled in grades 1 to 8 than in 1948–49. On the basis of 30 pupils per teacher, this increase in enrollments would require 5,300 additional teaching positions or an average of over 650 annually. The greatest increase in any single year will occur about 1954–55, when about 1,000 more teaching positions may be needed than in the preceding year. After 1957–58, the demand for new teachers will be limited, in general, to replacements. However, owing to the expanded teaching staff, the number of vacancies to be filled each year will probably be much larger than at present—perhaps higher than 1,700.

In high schools, new teachers will be needed for the next 3 or 4 years, largely to replace some of the 150 now employed on emergency certificates and to fill vacancies created by deaths, retirements, and other losses to the profession. The normal replacement need is estimated at about 500 annually. In 1948–49, teachers already exceeded the demand in many subject fields, particularly physical education, social science, and English; however, there was some shortage of science and industrial arts teachers in white schools. In 1949, over 2,000 new graduates of North Carolina colleges qualified for high school teaching, 350 more than in 1948 and 750 more than in 1941. The outlook is for an overall surplus of high school teachers at least for several years. Competition among Negro teachers will be especially sharp.

About 1953, high school enrollments will begin to expand, increasing by approximately 62,000 between 1948 and 1960. Assuming a ratio of 25 pupils per teacher, this gain would require a third more teachers than were employed in 1948–49.

Earnings

Average annual salaries in the State for 1948–49 were estimated as follows:

	White teachers	Negro teachers
Elementary	$1,919	$1,999
High school	1,942	1,939

The State salary schedule for 1949–50 is shown below. This schedule reflects an increase of about one-third in the appropriations for 1949–50 and 1950–51 over the previous appropriation.

State minimum monthly salary schedule for 1949–50 (9 months)

Experience in years	Type of certificate						
	Graduate [a]	Class [b]			Elementary		Nonstandard
		A	B	C	A	B	
0	------	$229	$204	$165	$153	$141	$120
1	------	234	209	170	157	146	------
2	$258	239	214	175	161	151	------
3	265	245	219	180	165	156	------
4	273	251	224	185	169	------	------
5	281	258	229	190	------	------	------
6	289	265	234	------	------	------	------
7	297	273	------	------	------	------	------
8	305	281	------	------	------	------	------
9	314	289	------	------	------	------	------
10	323	297	------	------	------	------	------
11	332	306	------	------	------	------	------
12	341	------	------	------	------	------	------

[a] Applies to both elementary and secondary teachers who have the master's degree.
[b] Primary, grammar grade, and secondary.

In some areas, particularly in cities, the State schedule of salaries is increased by a local supplement. For example, in Asheville 10 percent was added to the State schedule in 1948–49, in Durham 20 percent was added, and in Greensboro the supplement was approximately 20 percent.

NORTH DAKOTA

Number of Teachers and Enrollments

The public elementary schools employed about 4,600 classroom teachers, principals, and supervisors and had 87,500 pupils enrolled in 1948–49; secondary schools employed 1,860 teachers for 27,000 enrollments. Less than 1,000 of the teachers were in schools in cities of 2,500 or more population; about 2,800 were in one-teacher schools.

Certification Requirements

Minimum requirements for the professional elementary certificate are graduation from a 2-year teacher-training course of 64 semester hours, with 16 hours in professional education including 3 in student teaching.

Lower-grade certificates are the "first-grade elementary certificate," for which graduation from a 1-year teacher-training course of 48 quarter hours is required, and the "second-grade elementary certificate," which is issued on the basis of examinations held once a year and qualifies the holder of the certificate for teaching in rural schools unless a higher grade of certificate is required by local authorities.

Requirements for a professional high school certificate are a bachelor's degree from an accredited college or university, 16 semester hours in education of which 3 must be in student teaching, and specific numbers of hours in the candidate's major and minor subjects. Special certificates are issued for certain subjects, such as art and music.

Emergency certificates are issued when necessary to persons not meeting regular qualifications.

Applicants for certification must be at least 18 years of age.

Outlook

Employment opportunities will be very good for elementary school teachers in the near future. For the next 2 or 3 years, such teachers will be needed primarily as replacements for those who leave the profession and for some of those employed on emergency certificates in 1948–49, since enrollments are not expected to increase substantially in this State until about 1952. The number of elementary teachers needed to replace those leaving the profession was about 400 in 1948–49, or about 9 percent of the total elementary teaching force; it is likely that about the same number will be needed in the fall of 1949. In addition, there were some 235 elementary teaching vacancies in 1948–49, even though more than 1,400 emergency certificates had been issued. It appears that the demand for elementary teachers will exceed the supply in 1949–50, since only 273 students in North Dakota teacher-training institutions were expected to become qualified for elementary certificates in 1949, as compared with 925 in 1941.

Employment of elementary teachers will probably rise somewhat from 1952–53 through 1956–57, when enrollments in grades 1 to 8 are likely to increase by about 1,600 each year; this gain would require 50 to 75 new teaching positions annually, if an additional teacher is provided for each 30 added enrollments. After 1956–57, enrollments will probably tend to decrease, and opportunities for teachers will arise chiefly from replacement needs.

Openings for high school teachers in the next few years will also be chiefly as replacements for those who leave teaching in the State. These needs were estimated at 300, or about 16 percent of the 1948–49 high school teaching staff, and it is likely that about this many will be needed in 1949–50. A few teachers may also be required to fill positions which were vacant the previous year. However, the teacher-training institutions in the State were expected to graduate 395 students qualified for secondary teaching in 1949; the supply of new teachers should be sufficient to meet the need in most localities, except in a few subject fields.

Enrollments and teacher employment in the secondary schools are not expected to increase very much over the long run. By 1959–60, however, there may be about 3,000 more pupils enrolled in grades 9 to 12 than in 1951–52. On the basis of 25 pupils per teacher, this increase would require 120 additional teachers over the period. The attrition rate may decline from the 1948–49 rate of 16 percent; if it should decrease by half, about 150 teachers would still be needed annually in the late 1950's as replacements for those who leave high school teaching in the State.

Earnings

The estimated average annual salary of elementary teachers was $1,550 in 1948–49; for secondary teachers it was $1,900.

State law set the minimum salary for teachers with the lowest certificate at $900 in 1948–49 and provided a $1,350 minimum for those with a B. A. degree.

The single-salary schedule in effect in Fargo in 1948–49 is given below. The figures cited are exclusive of a cost-of-living adjustment of $200. Furthermore, they are for women teachers; men teachers received $300 more.

Educational preparation	Annual salary		
	Minimum	Increments	Maximum
2 years	$2,000	8 @ $50	$2,400
3 years	2,100	8 @ 75	2,700
4 years	2,200	8 @ 100	3,000
5 years	2,300	8 @ 125	3,300

OHIO

Number of Teachers and Enrollments

There were about 24,500 teachers and about 770,000 pupils in the public elementary schools during the school year 1948–49. The secondary schools employed 19,500 teachers for their 391,500 students.

Certification Requirements

Graduation from a 4-year college course is required for the high school teacher's certificate. The candidate's training must include 17 semester hours of professional education courses, at least 3 of which were in student teaching and observation, and not less than 15 semester hours in each of three teaching fields. In certain special fields more than 15 semester hours are required.

Certificates to teach in elementary schools may be granted to persons who have completed only 3 years of college work. This training must include 19 semester hours of education courses, of which 5 were in student teaching.

Ohio teacher-training institutions have recently organized a 4-year course which enables a student to obtain certification for both elementary and secondary teaching. The State Supervisor of Teacher Education and Certification feels that a trend is developing toward this type of dual certification.

Temporary certificates are granted to persons not having these qualifications when fully qualified persons are not available. About 80 percent of the emergency certificates in force during the school year 1948–49 were in the rural schools.

Outlook

A severe shortage of elementary teachers existed in 1948–49 and is expected to continue during the next 4 years. The Ohio Supervisor of Teacher Education and Certification estimates that during the next 4 years approximately 2,000 new elementary teachers will be needed annually to replace those leaving the profession, that 1,000 will be required each year to handle increased enrollments, and that an additional 1,000 should be recruited annually to replace some of those holding emergency certificates.[12] Thus, a total of about 4,000 new elementary teachers will be required each year. In contrast, the number of students from Ohio's colleges completing courses qualifying them for elementary positions was estimated at only 940 in 1949.

In the mid-1950's, an even larger number of teachers will need to be added to handle increased enrollments in grades 1 to 8, owing to the record numbers of births during the early postwar years (1947 births in Ohio were more than double the 1933 number). On the basis of 30 pupils per teacher, an average of about 2,000 new teachers would be needed annually to take care of the increase of about 230,000 in enrollments expected in the 4-year period 1952–56. If the attrition rate continues to be approximately 10 percent as in 1948–49, about 3,300 new elementary teachers would be needed annually during this period to replace those who leave the profession.

Competition for high school positions in most teaching fields is expected during the next few years. The demand for high school teachers will then be largely for replacements, since not much increase in secondary enrollments (grades 9 to 12) is expected until 1951–52. It is estimated that about 10 percent of the high school teachers left the profession in 1947–48. If this rate of attrition continues during the next few years, nearly 2,000 replacements will be needed annually. However, about 3,280 students from Ohio colleges were expected to complete college courses qualifying them for high school positions during 1949—a considerable increase over the figure of 2,913 for 1948; 1,287 for 1945; and 1,947 for 1941.

[12] Bowers, Harold J., "Teacher Shortage in Ohio," *Educational Research Bulletin*, College of Education, Ohio State University, January 19, 1949, p. 2.

There will probably be an over-supply of secondary teachers in 1949–50 in most subject fields, with the greatest surplus in men's physical education. Fields in which a surplus is not anticipated in 1949–50 are agriculture, commerce, science, mathematics, and industrial arts.

The demand for high school teachers will increase during the 1950's, as the peak enrollments pass from the elementary grades to the high schools. Assuming a ratio of 25 students per teacher, over 1,800 new teachers would be needed to take care of the 45,000 increase in high school enrollments that is expected in the 2-year period 1956–58. At the same time, if the attrition rate should remain approximately 10 percent, about 2,100 new teachers would be needed annually as replacements. After 1958, enrollments and teacher employment will probably rise more slowly, but a continued upward trend is anticipated at least until 1960.

Earnings

A survey made by the Ohio Education Association shows that the average teaching salary in Ohio during the 1948–49 school year was approximately $2,900, about $140 more than in the previous year. The average for high school teachers increased by about $120 between the 2 years; that for the elementary teachers, by about $155.

Half of the elementary teachers earned over $2,500 in 1948–49; about 10 percent received less than $2,000 for the year. The median salary for high school teachers was $3,073, with about 13 percent earning less than $2,400. In 92 percent of Ohio's school districts single-salary schedules are in effect, and an elementary school teacher may expect the same salary as a high school teacher with an equal amount of educational preparation and experience.

As would be expected, the teachers employed in city school systems earned considerably more than those in village and country districts. During 1948–49, the median salary in cities was $3,255; in villages, $2,576, and in country districts, $2,387.

The city of Cleveland had slightly over 3,000 teachers on a single-salary schedule which began at $2,400. Holders of the bachelor's degree might eventually work up to $4,200, while those who had earned the master's degree might reach $4,500. The average salary of all Cleveland teachers was $3,684.

In Cincinnati, the minimum salary at the beginning of the 1948–49 school year for teachers with a bachelor's degree was $2,300, and the maximum was $4,000. In Columbus, the minimum salary for teachers with this amount of training was $2,050; in Akron, $2,200; and in Dayton and Toledo, $2,400.

OKLAHOMA

Number of Teachers and Enrollments

The public school system of Oklahoma employed about 17,500 classroom teachers, principals, and supervisors and had 505,000 pupils in 1948–49. Only about 6,400 teachers and 220,000 pupils were in urban schools (those in cities or towns with a population of 2,500 or more). About 9 percent of all the teachers and 8 percent of all enrollments were in schools for Negroes. The elementary schools employed approximately 11,100 teachers, principals, and supervisors for some 355,000 pupils. Close to 2,200 elementary teachers were in one-teacher schools.

Certification Requirements

For the elementary or the secondary life certificate, the candidate must have an A. B. or a B. S. degree (124 semester hours), with 18 hours of professional education courses including 6 hours of student teaching. For the elementary 1-year certificate, 60 semester hours of preparation, including 6 hours in education courses, are needed.

Applicants for the high school 1-year certificate need 90 semester hours of preparation with 12 hours in education courses including 6 hours in student teaching. An additional requirement for each of the above certificates is 3 semester hours in educational methods and management and Oklahoma school law.

Emergency certificates are issued, when necessary, to those not meeting regular requirements.

The minimum age for teacher certification is 20 years.

Outlook

Employment opportunities for qualified white elementary school teachers will be plentiful over the next few years. Teachers are needed to take care of increasing enrollments, to fill positions vacant in 1948–49, and to replace many of the persons employed on emergency certificates (about 400 such certificates were issued in 1948–49). In addition, approximately 1,100 teachers or 10 percent of the elementary teaching staff

leave teaching in the State annually and have to be replaced. That the supply of white elementary teachers will be inadequate to fill the needs in 1949–50 is indicatd by the fact that a total of only 756 students in teacher-training institutions in the State were expected to complete preparation for elementary teaching in 1949, as compared with 1,133 in 1948 and 1,653 in 1941. The supply of Negro elementary teachers will generally be sufficient to meet the demand, and there will be considerable competition for positions in some localities.

Demand for elementary teachers will remain high during the next decade. Enrollments in grades 1 to 8 are expected to increase each year until at least 1954–55, when they may be over 40,000 higher than in 1948–49. On the basis of 30 pupils per teacher, the increased enrollments would require a total of 1,300 additional teachers over the 6-year period. If the replacement rate should remain approximately 10 percent, as many as 1,250 new teachers would be needed annually for this purpose during the mid-fifties. Even after 1955–56, when enrollments are expected to decrease somewhat, the total number of new teachers needed annually would probably remain about 1,000 for several years.

High school needs for teachers in the next 3 or 4 years will be primarily as replacements for those who leave the profession, since enrollments are expected to remain at about the same level or possibly decrease slightly during this period. It is estimated that approximately 10 percent, or about 640, of the teachers leave the profession in the State each year and have to be replaced. While there were a few high school teaching vacancies in 1948–49 and about 80 teachers were issued emergency certificates, it appeared that the supply in 1949–50 would be more than adequate to fill the demands (except, possibly, in certain areas). Teacher-training institutions in the State were expected to prepare 1,831 students for secondary school teaching in 1949, as compared with 1,412 in 1948 and 1,575 in 1941. Competition for positions is expected to be particularly keen among Negro teachers.

Beginning about 1952–53, high school enrollments—and therefore the number of teachers needed—are expected to increase each year through 1960 and beyond. By 1959–60, enrollments in grades 9 to 12 may be some 12,500 higher than in 1948–49; this gain would require 500 additional teaching positions, on the basis of 25 pupils per teacher. The greatest expansion in any one year will probably occur about 1957–58, when about 250 new positions may be required. If the attrition rate for secondary teachers should remain at 10 percent, the number of new teachers needed as replacements would be about 700 per year in the late 1950's.

Earnings

Classroom teachers' salaries averaged $2,100 in this State in 1948–49—$2,450 in secondary schools and $1,800 in elementary schools. The minimum salaries set by State law for 1949–50 were $1,500 for teachers with 2 years' training, $2,000 for those with a bachelor's degree and $2,200 for those with a master's degree, with 5 increments of $100 each for each level.

Salary schedules providing minima in excess of these amounts have been established in some school systems particularly in the cities. An indication of the variations is shown in the following single-salary schedules in effect in Oklahoma City and Tulsa in 1948–49:

Educational preparation	Annual salary		
	Minimum	Increments	Maximum
OKLAHOMA CITY			
No degree	$1,500	22 @ $50	$2,600
Bachelor's degree	2,000	22 @ 50	3,100
Master's degree	2,100	4 @ 75 18 @ 50	3,300
TULSA [a]			
Bachelor's degree	2,200	5 @ 100 4 @ 75 6 @ 50	3,300
Master's degree	2,400	5 @ 100 4 @ 75 8 @ 50	3,600

[a] Salaries given are for women teachers; men receive $200 more.

OREGON

Number of Teachers and Enrollments

In 1948–49 there were about 9,500 classroom teachers, principals, and supervisors in the public school system of Oregon; about half were in urban schools (those in cities or towns with a population of 2,500 or more). The elementary schools had some 6,500 teachers and 200,000 pupils; secondary schools employed approximately 3,000 teachers to teach 67,000 pupils.

Certification Requirements

For the State elementary 1-year certificate, a candidate must have completed a 3-year elementary-teacher-training course or its equivalent at a standard normal school or teachers college. The training must include not less than 6 quarter hours of supervised teaching and 4 quarter hours of Oregon history and Oregon school law and system of education, besides meeting other specifications. The requirement as to Oregon history and related subjects may be waived for 1-year to allow an otherwise fully qualified teacher to receive a 1-year certificate. A teacher may obtain a 5-year certificate after teaching for 6 months on a 1-year State certificate.

A new applicant for a State secondary provisional certificate must have completed a 4-year secondary-teacher-training course in a standard college or university and have received a bachelor's degree. The course must include 17 quarter hours in education, 6 of them in supervised teaching and specified numbers in other subjects. Two quarter hours of Oregon history are also required. A State provisional certificate is good for 1 year only. To obtain another certificate of this type, the teacher must complete 9 quarter hours (6 semester hours) of approved study. After completing 45 hours of additional approved study, the teacher may qualify for a regular secondary certificate.

For this latter type of permit—the regular 5-year secondary State certificate—the basic requirements are completion of a 5-year secondary-teacher-training course and 1 year of teaching experience in Oregon, on a provisional certificate or on a high school emergency certificate. The candidate must have a bachelor's degree; his training must include 45 quarter hours of upper-division or graduate work beyond the requirements for the baccalaureate degree and 32 quarter hours of education.

Other requirements are specified for certificates in special subjects such as home economics or music.

Elementary emergency certificates are issued on the recommendation of the employing school district and are valid for 1 year in the district for which they are issued. Emergency certificates for high school teaching were discontinued as of June 30, 1949.

Outlook

Demand for elementary school teachers will be high for the next few years to take care of increasing enrollments and to replace many of the teachers employed on emergency certificates (well over 1,000 such certificates were issued in 1948–49). In addition, it was estimated that approximately 900 teachers, or 14 percent of the elementary staff had to be replaced in 1948–49. It is likely that approximately that number of replacements will be needed in 1949–50. That the supply of elementary teachers is far from adequate to meet the demand is indicated by the fact that only 500 students were expected to complete preparation in Oregon teacher-training institutions in 1949; 389 completed preparation in 1948. Many out-of-State teachers will probably be hired (about 400 were hired in 1947–48), but even this added supply will not meet the demand.

Elementary school enrollments (grades 1 to 8) are expected to have an upward trend until about 1958–59, when they may be 98,000 higher than in 1948–49. On the basis of 30 pupils per teacher, this would require nearly 3,300 additional teaching positions, or an average of about 330 per year, over the 10-year period. While these additions to the staff may tend to increase the number of replacements needed, the proportion who leave the profession may decrease somewhat from the 1949 rate of 14 percent. Even if the attrition rate is reduced to as low as 7 percent, about 700 new teachers would probably be needed annually as replacements during the latter years of the 1950 decade.

An oversupply of secondary teachers in many subject fields is in prospect in the near future. Secondary school enrollments (grades 9 to 12) may increase moderately in the next couple of years, requiring a few new teaching positions in certain localities, but the chief demand for high school teachers will be as replacements for those who leave teaching; this number is estimated to have been about 3 percent, or 100, in 1948–49. Shortages in some special subject fields, particularly home economics, physical education, commerce, and music may continue in the fall of 1949. For most other subjects the supply is approaching or exceeding the demand, and in some localities considerable competition for positions is foreseen. How large the over-all supply will be is

indicated to some extent by the fact that 568 students were expected to qualify for secondary teaching in the State in 1949. In addition to this potential supply, many teachers from other States will probably be seeking secondary school positions in Oregon (over 200 out-of-State high school teachers were hired in 1947–48).

Beginning about 1951–52, enrollments in the secondary schools will increase each year and by 1959–60, they may be about 37,000 higher than in 1948–49. These increased enrollments would require some 1,500 additional teaching positions if a teacher were provided for each 25 added pupils. The greatest increase in enrollments is expected to occur about 1957–58, when about 330 more teachers may be required than in the previous year. In addition, approximately 135 teachers would be needed annually as replacements during the late 1950's if the attrition rate remains about 3 percent.

The above estimates of enrollments, upon which the teacher needs are based, take into consideration the record number of births in the State in the 1940 decade, the large number of people who have migrated to Oregon from other States, and the expectation that in-migration will continue throughout the 1950 decade.

Earnings

The State-wide minimum salary for teachers with a bachelor's degree was $2,100 in 1948–49. Estimated average salary for elementary classroom teachers in 1948–49 was $3,000; for secondary classroom teachers, $3,400. According to a survey by the Oregon Education Association, 1947–48 salaries ranged from $1,500 to $3,200 for teachers in one- and two-room schools, from $1,800 to $3,600 for elementary teachers in second- and third-class districts, and from $1,836 to $3,900 for elementary teachers in first-class districts (exclusive of Portland). The range of salaries for high school teachers was from $2,400 to $3,800 in third-class districts, from $2,400 to $4,000 in second-class districts, and from $2,300 to $4,800 in first-class districts.

The following single-salary schedules were in effect in Portland, Salem, and Pendleton in 1948–49:

Amount of college training	Annual salary		
	Minimum	Increments	Maximum
PORTLAND			
No degree	$2,300	5 @ $200 1 @ 100	$3,400
Bachelor's degree or State vocational certificate	2,400	8 @ 200 1 @ 100	4,100
5-year secondary certificate	2,500	8 @ 200 1 @ 100	4,200
Master's degree	2,600	9 @ 200 1 @ 100	4,500
SALEM [a]			
2 years	2,730	7 @ 60	3,150
3 years	2,880	11 @ 60	3,540
4 years	3,030	12 @ 60	3,750
5 years	3,180	13 @ 60	3,960
Master's degree	3,240	14 @ 60	4,080
PENDLETON [a]			
3-year normal school diploma	2,920	4 @ 50	3,120
Bachelor's degree	3,280	4 @ 50	3,480
Master's degree	3,520	6 @ 100	4,120

[a] Additional training required to advance on schedule.

PENNSYLVANIA

Number of Teachers and Enrollments

Pennsylvania has the third largest public school enrollment and teaching staff in the country. About 59,000 classroom teachers, principals, and supervisors were employed in 1948–49 in the State's public schools to teach approximately 1,533,000 pupils. About 60 percent of the teachers and pupils were in the elementary schools. The Philadelphia public schools had a teaching staff of around 7,000; Pittsburgh, a staff of about 2,500.

Certification Requirements

Provisional college certificates are issued to graduates of accredited colleges who have completed curricula approved for the fields of teaching service designated on their certificates. For an elementary or kindergarten-primary certificate, the curriculum must include not less than 36 semester hours of professional education courses, 6 to 12 hours of which must be in appropriate student teaching. For a certificate to teach an academic subject in junior or senior high school, the college course must include 18 semester hours in the subject to be taught and 18 semester hours in education courses, 6 of which must have been in student teaching. The same requirements as to education courses are for a certificate in a special field (i. e., art, business education, industrial arts, health and physical education, home economics, music, or school librarian), but 30 semester hours must have been completed in the selected field. Still other requirements are made for certificates in vocational subjects or in special services such as guidance or classes for handicapped or gifted children.

Provisional college certificates are good for 3 years. After a teacher has completed 3 years of satisfactory experience and 6 semester hours of approved courses beyond those he had when first certificated, he may be granted a permanent certificate.

A teacher with a valid secondary school certificate may obtain an elementary-temporary standard certificate on request of the local superintendent of schools. This type of certificate is good for only 1 year; renewal is dependent on satisfactory teaching performance and completion of 6 additional semester hours of approved preparation. Special emergency certificates are also issued when necessary, on superintendent's requests, to people who do not meet the regular requirements.

Outlook

The elementary teacher shortage is likely to grow worse in 1949–50. Only about 957 students from colleges in the State were expected to complete training in 1949 qualifying them for elementary teaching certificates. This is much less than half the number which the Pennsylvania Department of Public Instruction expects will be needed to replace teachers withdrawing from the profession and to handle increased enrollments. In all probability, even more emergency teachers will have to be employed in 1949–50 than in the preceding year, when about 1,700 elementary teachers held emergency permits.

In the years that follow, enrollments in grades 1 to 8 will continue to rise. They are expected to reach a peak about 1955–56, when at least 225,000 more children will probably be enrolled than in 1948–49 (according to some estimates, the increase will be much greater than this). A gain of 225,000 students would call for the employment of about 7,500 additional teachers during the 7-year period, assuming a ratio of one teacher to every 30 pupils (this estimate is, likewise, conservative in that the pupil-teacher ratio will be lower than 30 in the case of 7th and 8th grade pupils in junior high schools). There will also be a need for qualified teachers to replace some of those with emergency certificates; estimates of teacher needs made by the State Department of Public Instruction call for the replacement of 300 emergency elementary teachers each year at least until 1954–55. Furthermore, the growing size of the teaching staff will tend to bring with it an increasing number of vacancies owing to deaths or withdrawals for other reasons; assuming an attrition rate of 6 percent, there may be as many as 2,500 such vacancies annually in the late 1950's.

At the high school level, on the other hand, growing competition for jobs is anticipated in the near future. The number of Pennsylvania students qualifying for high school teaching certificates in 1949 has been estimated at 5,270, a larger number than in any other State. In certain subject fields—notably English, social studies, and men's physical education—the supply of teachers will be considerably larger than the demand in the near future. In some other fields—including mathematics and foreign languages—the supply of teachers is expected to be about adequate in 1949–50. In still others—industrial arts, science, women's physical education, art, music, and trade school subjects—continuing shortages of teachers are in prospect for that year.

Enrollments in grades 9 to 12 will probably decline slightly until about 1952. During that period hiring of secondary teachers will be limited, in general, to filling vacancies. But in 1952–53 enrollments are expected to begin an upward trend which will continue until about 1958–59. In the latter year, as many as 60,000 more youths may be enrolled in grades 9 to 12 than in 1948–49; according to some estimates, the increase will be much greater than this. At a ratio of 22 students per teacher, a gain of 60,000 students would call for the employment of some 2,600 additional teachers. Replacement needs will provide a much larger number of jobs than this; as many as 1,500 high school teachers may well be needed annually to fill vacancies in the late 1950's, assuming an attrition rate of 6 percent. Nevertheless, the total number of new teachers needed in a single year is not likely to reach 3,000

even in 1957–58, when high school enrollments will be growing at the fastest rate. If the output of new graduates trained for secondary school teaching should remain at the 1949 level, there would no doubt continue to be stiff competition for high school positions.

Earnings

The new State-mandated minimum salary schedule, which will be in effect during the 1949–50 school year, is as follows for classroom teachers in second-, third-, and fourth-class school districts (all except Philadelphia and Pittsburgh):

Type of certificate held	Annual salary		
	Beginners	Increments	With full credit for experience
Standard certificate	$2,000	7 @ $200	$3,400
College certificate	2,000	9 @ 200	3,800
College certificate plus master's degree	2,200	9 @ 200	4,000

Pennsylvania's new schedule is one of the few State-wide single-salary schedules. The $200 increments provided are a larger annual increase than is given under most State laws.

School districts are permitted to pay higher salaries than are specified by the State schedule. Many do this. The schedules in effect in Philadelphia and Pittsburgh in 1948–49 were as follows:

Educational preparation	Annual salary		
	Minimum	Increments	Maximum
PHILADELPHIA			
Standard certificate	$2,200	7 @ $200	$3,600
Standard certificate plus [a]	2,200	8 @ 200	3,800
College certificate (bachelor's degree plus 1 year)	2,400	8 @ 200	4,000
College certificate plus [a]	2,400	9 @ 200	4,200
Master's degree	2,600	9 @ 200	4,400
PITTSBURGH			
No degree	2,200	8 @ 200 1 @ 100	3,900
Bachelor's degree	2,200	10 @ 200 1 @ 100	4,300
Master's degree	2,400	10 @ 200 1 @ 100	4,500

[a] The designation "plus" applies to teachers who meet certain standards established in October 1947 by the Board of Education.

RHODE ISLAND

Number of Teachers and Enrollments

About 3,900 classroom teachers, principals, and supervisors were employed in 1948–49 in the public schools of Rhode Island to teach approximately 95,000 pupils. Nearly 75 percent of the pupils and 53 percent of the teachers were in elementary schools. An unusually large proportion of the teachers were employed in urban schools (almost 90 percent). The city of Providence employed over 1,200 classroom teachers.

Certification Requirements

The provisional certificate, which is valid for 1 year, can be obtained upon graduation from a 4-year course at the college level including 200 clock hours of professional education courses. A graduate of a 3-year State normal school with 5 years of experience or a graduate of a 2-year State normal school with 10 years of experience may be also certified provisionally. In order to obtain the professional certificate, which is valid for 5 years, it is necessary to graduate from an approved college and to have completed 400 clock hours of professional education courses and also 400 clock hours of practice teaching in the Rhode Island public schools under the supervision of a critic teacher. However, the practice teaching requirement may be waived after 5 years of satisfactory service in Rhode Island public schools, following visitation and inspection of classes by the State Supervisor of Certification. These requirements pertain to elementary and junior and senior high schools alike. Completion of college courses in certain "special" fields are also required for teaching music, art, agriculture, shop, physical education, home economics, and business education.

Outlook

The shortage of elementary teachers which existed in 1948–49 is likely to continue for the next few years. Elementary enrollments (grades 1 to 8) are expected to increase by about 10,000 between 1948–49 and 1951–52—creating an annual need for over 100 new teachers, if personnel is added at the rate of one teacher for every 30 students. In addition, approximately 150 additional elementary teachers would be needed annually as replacements for the next few years, if an attrition rate of 7 percent is assumed. In spite of the great need for elementary teachers, only about 50 persons were expected to complete college courses in the State in 1949 preparing them to teach at the elementary level, as compared with 95 in 1941.

The most rapid increase in elementary enrollments and teaching positions is expected to occur from about 1952 to 1955. Based on a ratio of 30 pupils per teacher, about 200 new positions may be required each year during this period to take care of the 17,000 additional pupils anticipated. Moreover, a replacement rate of 7 percent would mean an annual need for about 200 additional elementary teachers from 1952 to 1959.

A surplus of high school teachers is likely during the next few years. The demand for secondary teachers will be largely for replacements, inasmuch as little increase in enrollments is expected at that level (grades 9 to 12) until the late 1950's. If attrition takes place at the rate of 5 percent during the next few years, 100 replacements would be needed annually. However, about 115 students at Rhode Island institutions completed preparation for secondary teaching in 1949, compared with 76 in 1948 and 84 in 1941. These Rhode Island graduates together with applicants from nearby States which already have an oversupply of secondary teachers, may cause considerable competition for positions in the Rhode Island high schools.

Beginning about 1952, there will be an increase in the number of high school teaching positions, as the expanded enrollments pass into high school from the elementary grades. If teachers are added at the rate of one for every 25 additional pupils, an average of about 25 new positions per year will probably be needed between 1952 and 1955 and about 100 per year between 1956 and 1958. Furthermore, a replacement rate of 5 percent would mean an annual need for another 100-odd new teachers in the late 1950's.

Earnings

The minimum teaching salary set by State legislation was $1,800 per year as of 1948–49. In that year, the average salary of elementary teachers was about $2,800; of secondary teachers, about $3,200. The cities of Pawtucket, Cranston, and East Providence have single-salary schedules; minimum and maximum salaries for regular classroom teachers with 4 years of training were as follows in 1948–49:

Pawtucket	$2,400 and $4,000
Cranston	2,200 and 4,200
East Providence	2,300 and 4,000

SOUTH CAROLINA

Number of Teachers and Enrollments

This State's public schools had about 16,000 classroom teachers in 1948–49, two-thirds of whom were in rural schools. The elementary schools employed 11,500 teachers for 388,500 pupils; about 5,300 of these teachers and 194,000 of the students were in Negro schools. Secondary schools had 4,500 teachers and 115,500 pupils; about 1,000 teachers and 33,000 enrollments were Negroes, a relatively smaller number than in the elementary grades. The State school system recently changed from an 11-grade to the standard 12-grade type, and the first full graduating class under the 12-year program was that of 1948–49.

Certification Requirements

The regular elementary teaching certificate requires a bachelor's degree with 21 semester hours in professional education courses, including 6 hours of directed teaching. Secondary school certificates also require a bachelor's degree, with a minimum of 18 semester hours in professional education including 6 hours of directed teaching. The number of semester hours required for the various subject fields range from 18 for history, general science, and some other fields to 48 for agriculture.

Several types of certificates are issued depending on the applicant's experience and educational preparation. In addition, each certificate is graded A, B, C, or D, according to the teacher's score on the National Teacher Examination. All applicants must take this examination. Applicants for certification must also be 18 years of age; provide a certificate of good health; submit an acceptable evaluation of their personal and professional qualities from the training institution attended; and sign a statement of intention

to teach during the current year in South Carolina.

Emergency permits, good for 1 year only, are issued at the request of school authorities to teachers who do not qualify for a standard certificate, provided no regularly certified teachers in the area are available.

Outlook

Employment prospects for qualified white teachers at the elementary level will be excellent over the next few years. Teachers are needed to take care of the greatly increasing enrollments resulting from the high birth rates of the early 1940's, as well as to replace many of the persons teaching on emergency certificates (600 such certificates were issued in 1948–49). In addition, nearly 1,500 teachers, or 13 percent of the elementary staff, leave teaching in the State and have to be replaced. That the supply of white elementary teachers is inadequate to meet the demand is indicated by the fact that only 123 white students completed preparation in teacher-training institutions in the State in 1949. On the other hand, the supply of Negro teachers (204 graduated in 1949) is approaching the demand. The replacement rate for these teachers is much lower than for white teachers; considerable competition is expected to develop over the next few years.

It is expected that employment of elementary teachers will continue to rise for at least the next 6 or 7 years. Enrollments at this level will continue to increase each year until about 1956–57 when they may be about 115,000 higher than in 1948–49. On the basis of a 30 to 1 pupil-teacher ratio the increased enrollments would require about 3,800 additional positions over the next 8 years. The replacement rate for teachers is expected to decrease somewhat from the current 13 percent; if the rate should drop to about 7 percent, as many as 1,000 teachers would still be required each year to replace those who leave teaching in the State. Even after 1957, when enrollments are expected to decrease somewhat, the total number of teachers needed annually will probably remain approximately 1,000 for several years.

An oversupply of secondary teachers is in prospect for the next few years except in a few special subjects. High school needs for teachers in the next 2 or 3 years will be primarily as replacements for those who leave the profession, since enrollments are not expected to increase substantially during this period. While there were a few high school teaching vacancies and about 50 teachers employed on substandard certificates in 1948–49, the supply in 1949–50 will be adequate to fill most of the demands. In June 1949, teacher-training institutions in the State graduated 1,060 secondary school teachers (387 Negroes), as compared with 887 in 1948 and 733 in 1941. However, it is expected there will still be a shortage of teachers in some special subjects, particularly science, commerce, and home economics. Negro teachers were already in oversupply in 1948–49 and many were having difficulty finding openings.

Beginning in 1951–52 high school enrollments will increase each year during the following 10 to 15 years. At a ratio of 25 pupils per teacher, some 2,000 additional teaching positions will be required by 1960. The greatest expansion for any single year will probably occur about 1957–58, when as many as 500 new positions may be required. The replacement rate for high school teachers in South Carolina is expected to become lower; it was about 25 percent in 1948. If this rate should be cut in half, the number of new teachers needed as replacements would still be about 800 per year in the late fifties.

Several factors which are expected to increase enrollments in the South Carolina schools have been allowed for in these estimates. More and better facilities are being built; school attendance laws are being more strictly enforced; the transportation provided for pupils is being improved; industrial activity in the State is increasing, and with it the number of children in urban areas where it is relatively easy to get to school; vocational education is being expanded and is expected to hold the older children in the high schools longer; new high schools, particularly for Negroes, are increasing enrollments; extension of junior high school facilities is keeping pupils in school longer.

Earnings

The average salary for elementary teachers in South Carolina was $1,570 in 1948–49. For secondary school teachers it was $2,040. Negro and white teachers are paid on an equal basis.

The State-mandated minimum salary schedule in effect in 1948–49 was as follows:

Educational preparation or type of certificate	Annual salary	
	Beginners	With full credit for experience
Lowest certificate:		
Grade D	$522	$675
Grade A	801	1,422
Bachelor's degree or 4 years:		
Grade D	954	1,368
Grade A	1,296	2,169
Master's degree or 5 years:		
Grade D	1,008	1,305
Grade A	1,359	2,286

Salaries vary widely among the school districts, as indicated by the schedules in effect in Columbia and Greenville in 1948–49. The minimum salaries indicated are the beginning figures for persons with grade D certificates; the maximums are the top figures for holders of grade A certificates.

Educational preparation	Columbia [a]		Greenville	
	Minimum	Maximum	Minimum	Maximum
Less than 2 years	$828	$1,896	$525	$1,550
2 years	936	1,992	740	1,650
3 years	1,032	2,088	740	2,000
Bachelor's degree	1,128	2,892	955	2,650
Master's degree	1,332	3,096	1,010	3,000

[a] Salaries are for women; men receive $204 more.

SOUTH DAKOTA

Number of Teachers and Enrollments

The public elementary schools in South Dakota employed about 5,300 classroom teachers, principals, and supervisors to instruct 85,000 pupils during the 1948–49 school year. Over 60 percent of these teachers were in one-room schools. During the 1948–49 school year the high schools enrolled about 30,000 students and employed about 1,800 teachers.

Certification Requirements

Graduation from a 4-year college course is required for the high school teacher's certificate. At least 15 semester hours in education, including 3 hours of student teaching, must be completed. A total of at least 24 semester hours of college credit must be earned in the major subject to be taught; 9 semester hours are required for a minor teaching field.

Two years of college work are required for the elementary certificate. At least 15 semester hours of this work must be in professional education courses, including 3 hours of practice teaching. A 1-year certificate to teach in elementary schools may be granted to persons who have completed 12 semester hours of college work and passed the teachers' examination. However, holders of this type of certificate must obtain additional college training before their certificates may be renewed.

Emergency teaching permits are granted when school authorities are unable to find fully qualified personnel.

Outlook

The shortage of elementary teachers which existed in 1948–49 is expected to continue for the next few years at least. It was estimated that about 15 percent of South Dakota's elementary teachers left the profession in the State after the 1947–48 school year. If attrition continues at this rate, approximately 800 new elementary teachers will probably be needed annually as replacements in the next few years. In spite of the great need for elementary teachers, only about 315 persons completed college courses in 1949 which prepared them to teach at the elementary level, as compared with 1,150 in 1941. To provide the necessary teachers for the immediate future, it will probably continue to be necessary to employ many with only emergency certificates; about 1,000 such certificates were issued to elementary teachers in 1948–49.

Because of the high birth rates during the 1940's there will be some increase in elementary school enrollments and teaching positions during the 1950's, even though out-migration from this State is assumed to be at about the same rate as in the immediate prewar years. Based on a ratio of 30 pupils per teacher, an average of about 50 new teachers would be required each year to take care of the 8,000 additional enrollment expected in grades 1 to 8 between the fall of 1951 and the fall of 1956. A considerably larger number of new elementary teachers will be needed to make up for losses to the profession owing to deaths, retirements, or

transfers to other fields of work. If the replacement rate should continue at approximately 15 percent, the number of new teachers needed annually in the late 1950's to make up for losses to the profession would be about 850.

The demand for secondary teachers in the next few years will be largely for replacements, inasmuch as little increase in high school enrollments (grades 9 to 12) is expected until about 1956. It was estimated that approximately 15 percent of the high school teachers, as of the elementary staff, left the profession after the 1947–48 school year. If this rate of attrition continues during the next few years, nearly 300 replacements will be needed annually. However, about 400 students completed preparation for secondary school teaching in 1949. Though some of these persons may never enter the teaching profession, an oversupply of high school teachers is expected in most subject fields.

Beginning about 1956, there may be a slight increase in the number of high school teaching positions. Although some of South Dakota's small high schools will be able to enroll additional students without increasing the staff, it appears that in the last 4 years of the 1950 decade a total of approximately 60 new positions would be needed to take care of the enrollment increase of about 1,500 expected in that period (assuming a ratio of 25 pupils per teacher). If the replacement rate for these teachers continues to be approximately 15 percent during the period, about 275 teachers would be required annually as replacements.

Earnings

Yearly salaries averaged about $1,700 for elementary teachers and $2,050 for high school teachers in 1948–49. City elementary teachers earned an average of $2,135 per year, while city high school teachers averaged $2,875. The highest 10 percent of the secondary teachers earned over $3,500 per year, while the same proportion of the elementary teachers earned over $3,000.

Rural teachers averaged $185 per month; many of them teaching only an 8-month term. Only about 2 percent of the rural teachers had annual earnings of $2,200 and over, while the lowest paid 1 percent earned less than $1,200 per year.

The city of Sioux Falls had a single-salary schedule which began at $1,800 and went up to $2,500 in 1948–49 for teachers without a degree. Holders of the bachelor's degree began at $2,000 with increases to $3,200. Teachers with the master's degree started at $2,200 and advanced to $3,400. Married men received an additional $200 per year. A cost-of-living adjustment of $150 was also added to the annual salaries of all Sioux Falls teachers in 1948–49.

TENNESSEE

Number of Teachers and Enrollments

The public elementary schools employed about 15,850 classroom teachers, principals, and supervisors, and had 522,000 pupils enrolled in 1948–49; secondary schools employed 5,400 teachers for 128,000 pupils. About 3,100 of the elementary and high school teachers and 110,000 of the pupils were in schools for Negroes. Only about 28 percent of the pupils and 23 percent of the teachers were in cities with populations of 2,500 or more.

Certification Requirements

For the regular professional certificate for elementary school teaching in Tennessee, one must have at least 2 years of college preparation, with 18 quarter hours of education courses including 3 in directed teaching. Junior high school and high school professional teaching certificates require at least 4 years of college preparation; a minimum of 27 quarter hours in professional education subjects must be included, at least 3 of which must be student teaching and not less than 18 quarter hours of credit in each subject to be taught. Emergency permits may be issued to those not meeting other certification requirements.

The minimum age for teachers is 18. Citizenship and proof of good health are required.

Outlook

Employment opportunities for qualified white elementary teachers in the public schools of Tennessee will be plentiful over the next few years. Teachers are needed to take care of increasing enrollments, as well as to replace many of the teachers employed on emergency permits (4,800 such permits were issued in 1948–49). In addition, about 1,000 elementary teachers leave teaching in the State each year and have to be replaced. That the supply of elementary teachers is inadequate to meet the demand is indicated by the fact that less than 600 students from Tennessee teacher-training institutions completed work in 1949 preparing them for elementary teaching. While there will be some openings in the Negro schools, competition for these jobs is developing. The supply is expected to be adequate to meet the demand in most localities in 1949–50.

Enrollments at the elementary level (grades 1 to 8) will continue to increase until about 1956–57, when they may be about 150,000 higher than in 1948–49. On the basis of 30 pupils to a teacher, the increased enrollments would require about 5,300 additional positions over the 8-year period. The number of replacements needed will, of course, tend to increase with the expanded staff, and may be about 1,300 annually during the latter years of the 1950 decade (assuming a continued 6 percent attrition rate).

Considerable competition for secondary school teaching positions is expected. However, the 1948–49 shortage of high school teachers in certain special subjects—music, band directing, commerce, physical education, health, and the physical sciences—may continue for a year or two. Also, 358 teachers were issued emergency high school permits in 1948–49, and many of them may be replaced by fully qualified personnel. Turnover, estimated at 5 percent, will require approximately 250 new teachers annually as replacements. The supply of newly trained personnel seeking positions will probably far exceed these needs; about 1,400 teachers were graduated from Tennessee teacher-training institutions in 1949. Negro secondary school teachers are already in oversupply, and competition for the few annual openings will be keen.

High school enrollments and teaching positions are expected to increase each year during the 1950 decade and beyond, as the expanded elementary enrollments progress into the higher grades. The expected increase in the number of students in grades 9 to 12 would require about 3,000 more teaching positions in 1959–60 than in 1948–49 (on the basis of a 25 to 1 pupil-teacher ratio). In addition to these new positions, another 3,500 high school teachers would be needed during the next decade to replace those who die, retire, or otherwise leave teaching in the State, assuming a continued 5-percent attrition rate. The number needed each year for such replacement is expected to rise gradually to around 400 in the late 1950's as the teaching staff is expanded. However, a supply of new teachers equal to that of 1949 would be sufficient to meet the anticipated demand.

Earnings

The State salary schedule for certified teachers for the 1949–50 school year, which applies to both white and Negro teachers in grades 1 through 12, is as follows:

Educational preparation	Monthly salary										
	Years of teaching experience										
	Under 1	1	2	3	4	5	6	7	8	9	10 or over
Less than 45 quarter hours	$131	$133	$135	$137	$139	$141					
45 quarter hours	136	138	140	142	144	146					
90 quarter hours	163	166	169	172	175	178	$181				
135 quarter hours	182	185	188	191	194	197	200				
Bachelor's degree	223	226	229	232	235	240	243	$246	$249		
Master's degree	250	253	256	259	262	267	270	273	276	$279	$282
Master's plus 45 quarter hours	266	269	272	275	278	283	286	289	292	295	298
Doctor's degree	282	285	288	291	294	299	302	305	308	311	314

The following annual salary schedules were in effect in Nashville and Knoxville in 1948–49:

Educational preparation	Annual salary		
	Minimum	Increments	Maximum
NASHVILLE			
Bachelor's degree	$2,250	16 @ $50	$3,050
Master's degree or equivalent	2,350	16 @ 50	3,150

Educational preparation	Annual salary		
	Minimum	Increments	Maximum
KNOXVILLE			
Bachelor's degree	2,000	12 @ 100	3,200
Master's degree	2,100	12 @ 100	3,300

TEXAS

Number of Teachers and Enrollments

In 1948–49, about 46,000 classroom teachers, principals, and supervisors were employed in the Texas public school system, and 1,330,000 pupils were enrolled. The elementary schools employed about 30,000 teachers for 1,030,000 pupils. Slightly over one-sixth of the elementary and secondary teachers and students were in Negro schools. A little more than half of the students and two-fifths of the teachers were in urban schools (those in cities of 2,500 or more population).

Certification Requirements

The elementary 4-year or the high school 2-year certificate requires a minimum of 30 hours of college credit with 6 hours in English and 6 hours in education and a course in Texas and Federal Constitutions. Completion of a regular college course in any State teachers college is required for the permanent elementary certificate.

For the permanent high school certificate, requirements are a bachelor's degree, with courses in education (minimum of 24 semester hours) including 8 hours of secondary education courses and 6 hours of methods, observation, and practice teaching. In addition, there are specified requirements for special subjects, such as art and music. Two semester hours on the Constitutions of the United States and Texas are also required, but this credit may be acquired after contracting for a position.

Emergency certificates are issued only to teachers from other States whose preparation fails to meet the Texas requirements.

Outlook

Employment prospects for elementary teachers will be good over the next few years. Teachers are needed to take care of the greatly increasing enrollments resulting from the high birth rates of the early 1940's, as well as to replace those teachers who die, retire, or otherwise leave teaching in the State each year. This latter demand, based on an estimated 6-percent attrition, would require 1,800 new teachers annually. While well-qualified teachers should have no difficulty finding jobs, the State Department of Education stated in early 1949 that there was no acute shortage. Though approximately 1,000 emergency certificates were issued in 1948–49, many teachers holding such certificates are attending summer school and will soon become qualified for regular certificates.

It is expected that enrollments at the elementary level will continue to rise each year until about 1957–58, when they may be about 475,000 higher than in 1948–49. With a ratio of 30 pupils per teacher, the increased enrollments would require about 16,000 additional teaching positions, or an average of nearly 1,800 per year. The greatest increase in any single year is expected to occur about 1954–55, when some 2,800 more teaching positions may be needed than in the previous year. In addition, approximately 2,800 new teachers would be needed annually as replacements for those leaving the expanded staff during the latter years of the 1950 decade if the attrition rate for elementary teachers should remain about 6 percent.

A surplus of secondary teachers in many, though not all, subject fields is indicated for the near future. During the next 2 or 3 years, needs for teachers at this level will be primarily as replacements for those who leave the profession, since enrollments in grades 9 to 12 are not expected to increase substantially until about 1952. The number of high school teachers needed as replacements during this period is estimated to be approximately 1,000 per year, or about 6 percent of the teaching force. The supply of new secondary teachers greatly exceeds this demand and is higher than before the war; reports from only two-thirds of the teacher-training institutions in the State indicated that 3,745 students completed training for secondary school teaching in 1949 and 3,805 in 1948, as compared with 2,236 in 1941. The oversupply of personnel will probably be greatest in the English and social science fields. Continuing shortages of qualified teachers were anticipated in the following areas in 1949–50: physics, chemistry, mathematics, choral singing, band directing, and athletic coaching.

After 1952, secondary school enrollments are expected to increase considerably each year through 1960 and beyond. By the 1959–60 school year, enrollments may be 175,000 higher than in 1948–49; this increase would require 7,000 new teaching positions if a teacher were provided for every 25 additional students. As the staff is expanded, the number who leave the profession will probably increase; in the late 1950's, the number of new teachers needed annually as replacements, with an attrition rate of 6 percent, would be approximately 1,400.

Earnings

The minimum salary schedule for 1949–50 established by the State Equalization Aid Law is as follows for a 9-month term:

Educational preparation	Beginners	Increments	With full credit for experience
1 year	$1,395	12 @ $54	$2,043
2 years	1,620	12 @ 54	2,268
3 years	1,845	12 @ 54	2,493
Bachelor's degree	2,403	12 @ 54	3,051
Master's degree	2,628	26 @ 54	4,032

The State salary schedule is not applicable in all school districts. In some localities the pay scales were below those specified in the State schedule in 1947–48. However, the single-salary schedules in effect in 1948–49 in most cities were at or above the State minimum which was in effect in that year.

UTAH

Number of Teachers and Enrollments

Enrollment in the public schools of Utah was 150,000 in 1948–49; about 5,000 teachers were employed. Thirty-nine percent of the students and 45 percent of the teaching staff were in the secondary schools, including junior high schools. About 290 teachers were in schools of three rooms or less; only 25 taught in one-room schools. The largest school system in the State is that of Salt Lake City, with a 1948–49 enrollment of 31,000 and a teaching staff of about 900. The Utah teaching staff has an unusually large proportion of men teachers—almost 30 percent.

Certification Requirements

Minimum educational requirement for elementary and general secondary certificates is the completion of a standard 4-year college curriculum, including certain academic and professional courses. For teaching at the elementary level, the curriculum must include 45 quarter hours of professional courses, of which 12 must be in student teaching. For the secondary certificate (junior and senior high school), one must complete 33 quarter hours of professional courses, 15 of which must be in student teaching.

Letters of authorization are issued to certain applicants who do not meet the minimum certification requirements.

Outlook

While the shortage of elementary teachers was acute in 1948–49, there are indications that it will ease considerably in the near future. Over 1,000 teachers were issued letters of authorization in 1948–49, and many classes were far larger than the ideal size. The situation has been particularly bad in one- and two-room rural schools. About 350 new teachers were hired in 1948–49, mainly to replace teachers leaving Utah schools; it is probable that this number will be needed annually as replacements for the next 2 or 3 years at least. In addition, new teachers will be required for the increasing enrollments and to replace some of the substandard elementary teachers. To meet these demands, some 400 students in Utah institutions were expected to become eligible for elementary teaching in 1949 (only 274 were trained in 1948). The supply of new graduates seems likely to increase for at least the next few years, since enrollments in education courses have risen considerably. Some emergency teachers may also become qualified for standard elementary certificates through additional training. Thus, in addition to supplying teachers for the increased enrollments and for replacement purposes, the number of substandard teachers who have to be employed will probably be reduced. However, employment opportunities are expected to be plentiful for well-qualified teachers. The shortage will persist longer in rural than in urban areas; as long as vacancies exist in urban areas, teachers prefer to accept placement there rather than to go into remote, isolated schools.

Enrollments in the elementary schools will continue to increase until about 1956–57, when they will probably be about 30,000 higher than in 1948–49. At a ratio of 30 pupils per teacher, this increase would require 1,000 new teachers over the 8-year period. If the attrition rate should remain about 13 percent as in 1948–49, approximately 500 teachers would be needed annually as replacements in the last half of the decade. However, the rate of withdrawal is likely to drop somewhat.

Shortages of teachers in Utah high schools are expected to be overcome in most subject fields in

1949–50. Enrollments in grades 9 to 12 will probably decrease slightly. However, new teachers will be needed to replace some of the substandard teachers (there were about 200 letters of authorization in 1948–49); also to replace the 250 or so teachers who annually leave the schools because of death, retirement, or for other reasons. The universities and colleges were expected to produce about 550 new high school teachers in 1949; this number should eliminate shortages in most subject fields. In fact, surpluses are likely to develop in some fields such as social science, the natural sciences, and English.

After about 1951, high school enrollments and teaching positions will begin to increase. By 1960, enrollments in grades 9 to 12 will probably be about 10,000 higher than in 1950–51; on the basis of 25 pupils per teacher, this would mean a need for 400 new teachers over the period. If the replacement rate should remain about 12 percent as in 1948–49, there would be an additional need for approximately 300 teachers annually during the last few years of the 1950's.

Earnings

The estimated average annual salary for secondary classroom teachers for 1948–49 was $3,325; for elementary teachers, $2,750.

The basic salary schedules in the two largest cities were as follows:

Educational preparation	Annual salary		
	Minimum	Increments	Maximum
SALT LAKE CITY			
No degree	$2,070	(a)	$3,378
Bachelor's degree	2,280	1 @ $60 1 @ 72 1 @ 84 1 @ 96 1 @ 108 5 @ 120 6 @ 72	3,732
Master's degree	2,490	(a)	3,942
OGDEN			
Less than degree	1,660	5 @ 85 9 @ 90 1 @ 80 1 @ 105	3,080
Bachelor's degree or equivalent	2,280	16 @ 90	3,720
Master's degree	2,380	15 @ 95 1 @ 105	3,910

[a] Increments are the same as for the bachelor's degree.

VERMONT

Number of Teachers and Enrollments

In the school year 1948–49 about 2,500 classroom teachers, principals, and supervisors were employed by the public schools to teach approximately 55,000 pupils. Nearly 75 percent of the pupils and 70 percent of the teachers were in elementary schools. The proportion of men employed was unusually small (only 13 percent, taking all grades together). About two-thirds of the teachers were employed in rural areas. The largest urban teaching staffs were in Barre, Brattleboro, Burlington, and Rutland, where enrollments ranged from 1,800 to 3,500 and instructional staffs from 60 to 110.

Certification Requirements

Minimum educational requirement for an elementary professional probationary certificate is the bachelor's degree from an approved college or university. If the institution does not offer courses in elementary education, an approved additional course must be completed which is usually the equivalent of at least a year of college work. This may, in most cases, be completed through summer study.

Junior high school certificates are issued to applicants with a bachelor's degree in the junior high school course from an approved college or university. Senior high school certificates are granted to applicants holding a baccalaureate degree from an approved institution. Twelve semester hours in professional education, 3 of which are in practice teaching, must be included.

Emergency certificates are issued to applicants who do not meet these requirements, in cases where no qualified teacher can be found.

Students with legal residence in Vermont are not charged tuition at the State teachers colleges. Some scholarships covering board and room are available.

Outlook

The shortage of elementary teachers will probably be more acute in 1949–50 than it was in 1948–49. In the latter year approximately 500 emergency elementary certificates were issued. Greatest shortages were in rural areas. Forecasts of 1949 supply and demand indicate that, unless additional teachers can be recruited from sources other than local colleges, the supply will not be sufficient to meet even the replacement needs, to say nothing of relieving the shortage. The State Department of Education estimates that 242 elementary teachers will be needed in 1949–50 to replace those leaving Vermont schools and to handle the increased enrollments. The estimated number of teacher-trainees at State institutions who were expected to qualify for elementary certificates in 1949 was 108; this is about the maximum number of graduates that can be expected in any one year from Vermont institutions because present capacity of teachers colleges is only about 450 students. Some teachers will, no doubt, be obtained from training institutions in Massachusetts and other States. However, there appears to be little chance of eliminating emergency certificates in the near future.

Elementary enrollments (grades 1 to 8) will rise to a peak about the year 1958–59, when approximately 15,500 more children may be enrolled than in 1948–49. With a pupil-teacher ratio of 30 to 1, this increased enrollment would furnish jobs for over 500 additional teachers during the 10-year interval. As the size of the training staff grows, the number of teachers dropping out probably will tend to increase also; if the rate of drop-out should continue to be about 13 percent as it was in 1947–48, then over 300 such vacancies would be created each year during the late 1950's.

The State Department of Education predicts "There will be a large number of high school teachers available in most academic fields in 1949–50. Shortages will continue in some subject fields, such as home economics, agriculture, and business education. In June 1950 there will probably be a good supply of agriculture teachers. The shortage of commercial teachers will probably grow worse for four years or more."[13]

The demand for high school teachers for the next few years will be limited largely to replacement needs. If the same proportion of high school teachers leave Vermont schools as did in 1947–48, about 21 percent of the high school teaching positions will be vacated. However, it may not be necessary to fill all these vacancies, since a decrease in high school enrollments is expected in the fall of 1949 and for the following 2 or 3 years. An estimated 175 teacher-trainees from Vermont institutions were expected to qualify for high school certificates in 1949. This source, along with other sources of supply, should provide enough new teachers to fill vacancies and replace emergency teachers in all but a few special subject fields, such as those mentioned above.

About 1953, high school enrollments will begin to climb and create new openings for teachers. The greatest increase in any single year will occur about 1957–58, when enrollments may increase by almost 1,000 over the previous year. Assuming a ratio of 25 students per teacher, this rise would call for the hiring of about 40 new teachers. Enrollments will probably continue to increase throughout the 1950 decade and, by 1959–60, may be about 3,300 higher than in 1948–49. If the rate of teacher withdrawal were to remain at 21 percent, there would be need for 200 new teachers annually by the end of the decade, to replace those leaving the high schools of this State. However, this high attrition rate is likely to be reduced.

Earnings

The average salary for 1948–49 was estimated at $2,550 for secondary classroom teachers and $1,945 for elementary classroom teachers. However, the wider choice of positions in the elementary schools may make it possible for an applicant to obtain a higher paying position in an elementary school than in a high school.

The minimum wage in 1948–49 for teachers meeting the minimum educational requirements was $1,500; for those completing 2 years of the approved teacher-preparation course, $1,600; and for those who have completed the 4-year approved course, $1,800.

VIRGINIA

Number of Teachers and Enrollments

Virginia's public elementary schools had about 13,800 teachers and 438,000 pupils in 1948–49. The senior and junior high schools employed about 6,600 teachers for their 142,000 students. About one-fourth of all the teachers in public schools were Negroes.

A survey conducted by the Virginia Education Association indicates some of the characteristics of Virginia's teaching force. Almost 90 percent of the teachers are women. The average age of rural teachers was 36 years, while those in city schools averaged about 39. In rural schools, male teachers had, on the average, about 9 years of teaching experience, whereas women teachers averaged 11 years of experience. In city schools,

[13] Memorandum to Superintendents of Schools from Arthur B. Elliott, Director of Teacher Education and Certification; State Department of Education; Montpelier, Vermont, February 23, 1949.

the figures were 14 years of experience for men and 18 for women.

Certification Requirements

The "collegiate professional certificate," which is the only renewable certificate issued in Virginia, requires a bachelor's degree and at least 18 semester hours of professional education courses, including 6 semester hours of student teaching, and entitles one to teach in both elementary schools and high schools. However, in order to teach in grades 1 through 5, at least 10 semester hours of this college work must be taken in courses that apply directly to those grades and must include student teaching in lower grades. High school teachers with two or more years of successful teaching experience may have this accepted in lieu of student teaching. A "collegiate certificate," which remains in effect for 4 years and is not renewable, may be given to graduates of a 4-year college course who have not yet completed the professional education courses required for the collegiate professional certificate. Emergency licenses may be granted to persons who do not meet these qualifications.

Outlook

A severe shortage of elementary teachers in Virginia is expected in the fall of 1949. The record number of births in recent years and inmigration, particularly from the District of Columbia to nearby Arlington County, are resulting in a sharp increase in school enrollments. Assuming a ratio of 30 pupils per teacher, about 600 additional teachers will be needed annually over the next 2 or 3 years to handle this increase in enrollments. In addition, a large number of new elementary teachers will be needed to replace those who leave the profession each year owing to death, retirement, or transfer to another occupation. An attrition rate of only 7 percent would mean an annual demand for about 1,000 teachers above the need for 600 or so new teaching positions. Still more teachers would be required if the school systems replaced, with fully qualified personnel, many of the 2,700 teachers now teaching without certificates on emergency licenses.

In 1949, only about 240 students were expected to complete preparation to teach in elementary schools in Virginia, as compared with about 350 in 1948 and 470 in 1941. This number obviously falls far short of the needs; therefore more emergency certificates will have to be issued, and oversized classes will not be relieved until there is a considerable increase in the number of graduates from teacher-training institutions.

The demand for elementary teachers will continue to increase until about 1957, when enrollments will be roughly 155,000 more than in 1948–49. An average of approximately 900 new teachers would be needed each year, on the basis of a pupil-teacher ratio of 30 to 1, to handle the increase in enrollments that is expected during the period 1953–54 to 1955–56. If an attrition rate of 7 percent is assumed, about 1,300 teachers would be needed for replacements each year beginning in 1955–56.

Although the shortage of high school teachers is not as acute as that in the elementary field, it appears that well-qualified people will be able to find positions in most subject fields during the next 2 or 3 years. In 1948–49, the fields of English and social studies were the only ones in which the supply of teachers approached adequacy. Enrollments in high schools are not expected to increase for the next year or two. However, many teachers will be needed as replacements. There is an increase in the number of persons qualifying for high school teaching. About 1,400 students were expected to complete such preparation in 1949, as compared with about 1,300 in 1948, 1,000 in 1947, 930 in 1945, and 1,200 in 1941. However, because professional education courses are not required for the collegiate certificate the above figure includes all persons graduating from liberal arts courses in Virginia. A considerable proportion of these graduates do not plan to enter the teaching profession.

During the 1950's there will be an increased demand for high school teachers, as the peak enrollments pass from the elementary grades to high school. Additional enrollments will also result from the provision of an extra year of schooling in districts which now operate on an 11-year basis. In 1948–49, about half of the State's school children were attending 11-year systems. In Virginia the extra year is usually added to the high school curriculum. It is expected that high school enrollments will increase about 70,000 between 1953 and 1960. At a rate of 25 pupils per teacher, this would represent a need for about 350 additional teachers each year. Approximately 600 new teaching positions would be required annually from about 1956 to 1958—the period of most rapid growth in enrollments. High school enrollments will no doubt continue to climb during the early 1960's, though at a somewhat slower rate.

Earnings

The average teaching salary in Virginia during the 1948–49 school year was estimated at about $2,000 for elementary teachers and $2,275 for high school teachers. A survey by the Virginia Education Association indicates that in 1948–49, the median beginning salary for holders of the bachelor's degree was $1,750 in country schools and $1,900 in city schools.

The city of Richmond had 1,215 teachers (not including supervisors and administrators) on a single-salary schedule under which holders of the bachelor's degree began at $2,100 and might eventually work up to $3,400, while those with a master's degree might reach $3,600. Norfolk had about 915 teachers on a single-salary schedule beginning at $2,000 for holders of the bachelor's degree; teachers might work up to $3,300 with a bachelor's degree or $3,500 with a master's degree.

WASHINGTON

Number of Teachers and Enrollments

The public elementary schools in the State of Washington employed about 10,800 classroom teachers, principals, and supervisors and had 320,000 pupils enrolled in 1948–49; secondary schools employed 4,650 teachers for 109,000 pupils.

Certification Requirements

For the regular elementary certificate (valid for 3 years) it is necessary to have a bachelor's degree from an accredited institution, with adequate courses in elementary education, practice teaching or teaching experience in the elementary grades, and courses in Washington State manual and Washington State history and government. A temporary certificate, valid for 1 year and not renewable, may be issued to an out-of-State applicant who meets the requirements for the regular elementary certificate with the exception of the courses relating to Washington. A "qualifying certificate" is issued on the basis of 3 full years and 12 additional quarter hours of college preparation applicable towards regular elementary preparation, including practice teaching or experience. This latter certificate is valid for 3 years, and the holder is expected to qualify for regular certification by the end of that period.

The basic educational requirement for the regular secondary school certificate (valid for 3 years) is 5 years of college work and a degree (bachelor's or master's) in secondary education conferred by an accredited institution. The college work must include the following: 24 quarter hours in education courses; 15 quarter hours in contemporary social problems; one major of 30 quarter hours and two minors of 15 hours each in subjects regularly offered in the State's secondary schools, and courses in Washington State manual and Washington State history and government. A temporary certificate, good for 1 year only, may be issued to an out-of-State teacher meeting all requirements except the last one. A "qualifying certificate" is issued on the basis of 4 years and 12 quarter hours of college preparation applicable toward regular secondary certification, including practice teaching or experience. This certificate is valid for 3 years only.

Emergency certificates may be issued to applicants not meeting all the regular certification requirements.

Outlook

Employment opportunities for qualified elementary teachers in the public schools of Washington are expected to be very numerous over the next few years. Teachers are needed to take care of rapidly increasing enrollments; also to replace many of those employed on emergency certificates (about 3,000 such certificates were issued in 1948–49); and to provide replacements for those who die, retire, or leave teaching for other reasons (some 600 teachers, amounting to about 5.5 percent of the elementary staff, were taken on as replacements in 1948–49). To meet these needs, only 578 students were expected to complete preparation in teacher-training institutions in the State in 1949. While a number of teachers will enter Washington from other States (over a fourth of the teachers hired in the smaller school districts in 1948–49 were from other States), the total number of fully qualified elementary teachers available will probably be far from adequate to meet the demand.

Enrollments at the elementary level (grades 1 to 8) will continue to increase each year until about 1956–57, when they may be about 175,000 higher than in 1948–49. A ratio of 30 pupils per teacher would require nearly 6,000 additional teaching positions for the added enrollments, or an average of approximately 750 a year over the

8-year period. These additions to the staff will tend to increase the number of replacements needed, and if the rate remains about 5.5 percent, nearly 1,000 new teachers would be needed as replacements each year during the late 1950's.

The short-run employment outlook is less favorable for secondary than for elementary teachers, though continuing shortages of personnel in some subject fields are anticipated for at least the next year or two. Enrollments in grades 9 to 12 are expected to increase moderately each year through about 1955–56, requiring an average of nearly 150 new teaching positions annually if a teacher is provided for each 25 added enrollments. Larger numbers of new teachers will be needed as replacements for those who leave the profession in the State (about 500 were taken on for this purpose in 1948–49). Also, some of the 1,400 teachers issued substandard certificates in 1948–49 may be replaced. In relation to these needs, teacher-training institutions in the State were expected to prepare only 260 graduates eligible for secondary certificates in 1949. It is likely that out-of-State teachers will be available in large numbers because of the oversupply at this level in many States and the continuing migration into Washington.

After 1955–56, secondary school enrollments are expected to increase more rapidly, requiring 500 to 600 new teaching positions each year through 1959–60. The number of replacements needed may increase to about 800 for the expanded staff if the attrition rate remains about 10 percent (the 1948–49 figure). In recapitulation regarding the number of new teaching positions needed—by 1959–60 the enrollments in the secondary schools will probably be 82,000 higher than in 1948–49, and if a new position should be created and filled for each 25 added enrollments, this would require approximately 3,300 more teachers than in 1948–49, a 70-percent increase.

The above estimates of elementary and secondary school enrollments take into consideration the record number of births in the 1940 decade (in 1947 the number of births was double the number in 1940), the large wartime and postwar migration into Washington, and the expectation that in-migration will continue throughout the 1950 decade.

Earnings

The State minimum salary is $2,400 per year for regularly certified teachers.

However, beginning salaries tend to be higher than this in some school districts, as is shown by the following tabulation of median minimum salaries in 1948–49:

Size of school district	3 years of college	4 years of college	5 years of college	6 years of college
Large 1st class districts	$2,400	$2,448	$2,688	$2,780
Smaller 1st class districts	2,460	2,600	2,700	2,800
Large 2d class districts	2,400	2,500	2,600	2,700
Middle 2d class districts	2,300	2,400	2,520	2,600

Most districts give their teachers 10 to 15 annual salary increments of $100.

The salary schedules in effect in 1948–49 in the three largest Washington cities—Seattle, Spokane, and Tacoma—were as follows:

Educational preparation	Annual salary		
	Minimum	Increments	Maximum
SEATTLE [a]			
Less than 4 years	$2,400	2 @ $50 10 @ 100	$3,500
Bachelor's degree	2,400	14 @ 100	3,800
Master's degree	2,500	14 @ 100	3,900
Additional training	----	3 @ 100	4,200
SPOKANE [b]			
3 years	2,370	15 @ 60 7 @ 30	3,480
4 years	2,550	15 @ 60 7 @ 30	3,660
5 years without master's degree	2,730	15 @ 60 7 @ 30	3,840
Master's degree	2,780	15 @ 60 7 @ 30	3,890
Additional training	----	----------	4,020
TACOMA [c]			
Bachelor's degree	2,520	11 @ 120	3,840
5 years	2,640	12 @ 132	4,224
Master's degree	2,772	12 @ 132	4,356

[a] Figures exclude cost-of-living adjustment amounting to $120 in 1948–49.

[b] Figures exclude cost-of-living adjustment amounting to $200 in 1948–49.

[c] No increment given until end of second year.

WEST VIRGINIA

Number of Teachers and Enrollments

Public elementary schools employed 10,292 teachers, principals, and supervisors in 1948–49 and had an enrollment of 299,373; considerably over half the elementary schools had only one teacher. In the secondary schools there were 5,391 teachers and 126,271 pupils, including 26,504 pupils in separately organized junior high schools. Public schools for Negroes employed about 1,000 teachers for 25,000 pupils.

Certification Requirements

Two years of college training, with a minimum of 9 semester hours of professional education courses, are required for the regular third-class elementary certificate. For the second-class certificate, 96 semester hours of college with a minimum of 14 hours of education courses are required. For the first-class certificate, a bachelor's degree with 20 hours of education courses is needed.

Requirements for the high school certificate are graduation and recommendation from a standard college. For a first-class high school certificate, valid for 5 years in junior and senior high schools, the applicant's college training must include 20 semester hours of professional courses, with 5 semester hours of student teaching and observation, and academic requirements ranging from 24 semester hours in most teaching fields to 50 semester hours in vocational agriculture. For the provisional certificate, valid for 1 year, 15 semester hours of professional education are required.

The "public school certificate" is issued to persons completing the single curriculum in West Virginia colleges approved for giving this training. These certificates are valid for 5 years for teaching in the elementary and secondary schools. There is a trend toward the 12-year integrated program which requires teachers with training in the single-curriculum course.

Emergency certificates are issued when necessary to some persons not meeting the regular requirements.

Outlook

Employment opportunities will be plentiful for white elementary school teachers for the next few years, particularly in rural schools. Qualified teachers are needed to replace some of the 1,885 teachers with emergency certificates in 1948–49. The number of teachers who leave the State's elementary schools because of death, retirement, or other reasons and who must be replaced is conservatively estimated at about 700 annually. In addition, elementary school enrollments (grades 1 to 8) are already increasing because of the high birth rates in the early part of the 1940's. The supply of teachers from training institutions in the State is far below the demand; only about 410 students, 60 of whom were Negroes, were expected to complete preparation for elementary teaching in 1949. It is likely that additional emergency certificates will have to be issued and many teachers without standard qualifications will be in the classrooms for at least another few years. However, this does not apply to Negro teachers, of whom there will be more than enough with regular certificates to meet the demand in most localities.

Demand for elementary teachers is expected to remain high through the 1950 decade. Enrollments will continue to rise each year, and by 1959–60 may be approximately 50,000 higher than in 1948–49; on the basis of 30 pupils per teacher this increase would require at least 1,600 additional teaching positions. With the expansion of the staff, it is estimated on the basis of a 7-percent attrition rate that about 850 new teachers may be needed annually as replacements during the latter part of the 1950's.

High school needs for teachers in the next 2 or 3 years will be primarily as replacements for those who leave the profession, since enrollments are not expected to increase substantially until after 1951. Replacement needs will probably not exceed 300 annually. There was some shortage of industrial arts, commerce, and mathematics and other physical science teachers in 1948–49 and some vacancies in certain districts of the State where housing was a problem; some of these shortages may persist in 1949–50 but, in general, there is evidence of an oversupply of high school teachers. Teacher-training institutions in West Virginia were expected to graduate 940 white and 240 Negro students prepared for high school teaching in 1949. Considerable competition for positions is expected in urban areas and among Negro teachers.

Enrollments and teaching positions needed in the secondary schools are expected to increase

each year through most of the 1950 decade, with the greatest increase occurring about 1955. Enrollments in grades 9 to 12 may be approximately 19,000 higher in 1958–59 than in 1948–49 and if so would require 760 additional teaching positions over the period, on the basis of 25 pupils per teacher. A replacement rate of 5.5 percent would mean a further need for some 340 new teachers annually during the last half of the 1950 decade.

Earnings

Elementary teachers had an estimated average salary of $2,064 for the year 1948–49. Secondary teachers had an average annual salary of about $2,580.

The minimum monthly single-salary scale for the State, as of 1949–50, was as follows:

Years of experience	Regular certificate				Emergency certificate	
	Master's degree	First Class (A. B. degree)	Second class (3-yr. college)	Third class	Short course	First (lowest) grade
0	$225	$200	$170	$165	$150	$145
1	231	206	176	171	156	151
2	237	212	182	177	162	157
3	243	218	188	183	168	163
4	249	224	194	189	174	169
5	255	230	200	195	180	175
6	261	236	206	201	186	181
7	267	242	212	207	------	------
8	273	248	218	213	------	------
9	279	254	224	------	------	------
10	285	260	230	------	------	------
11	291	266	------	------	------	------
12	297	272	------	------	------	------
13	303	278	------	------	------	------
14	309	------	------	------	------	------
15	315	------	------	------	------	------
16	321	------	------	------	------	------

Variations above the State salary schedule were in effect in some school districts in 1948–49, particularly in those with large urban populations. For example, in Kanawha, Harrison, and Ohio Counties (where Charleston, Clarksburg, and Wheeling are located), minimum 1948–49 salaries for holders of certificates requiring the bachelor's or master's degree were from $8 to $20 higher per month than the starting salary specified in the State schedule. In Harrison County the increments were the same as the State schedule provides. In the schedules for Kanawha and Ohio Counties, the annual increments were larger, leading to maximum salaries from $41 to $50 higher than those given in the State schedule.

WISCONSIN

Number of Teachers and Enrollments

During the school year 1948–49, the public high schools employed 6,600 classroom teachers, principals, and supervisors for their 140,000 students. There were about 14,000 teachers and 360,000 pupils in the public elementary schools. About one-fourth of the elementary pupils attended one-room rural schools. An average of 19 students were enrolled in each one-room school during the 1946–47 school year. However, 21 one-room schools had five or less pupils enrolled. Almost two-thirds of these schools had between 10 and 24 pupils; 56 schools had 45 or more pupils enrolled.

Certification Requirements

Graduation from a 4-year college course is required for high school teaching. At least 18 semester hours must be completed in professional educational courses, including 5 hours of student teaching. In addition, teachers of academic subjects must have at least 24 semester hours in their major field and 15 semester hours in each of two minor fields, besides meeting certain other requirements.

For a certificate to teach in city elementary schools, one must have completed 3 years' work in a teacher-training institution, including student teaching and observation and other professional education courses. Certificates to teach in rural schools, State graded schools, and village elementary schools are given after the completion of 2 years at a teacher-training institution.

During the shortage of teachers the State Superintendent of Public Instruction has issued

emergency permits, upon request of the county or city superintendents, to certain people who do not qualify for standard certificates. In addition, a holder of a high school certificate may obtain a special permit to teach in the elementary grades if he has been offered an elementary teaching position and has completed at least 6 semester hours of college work in preparation for such teaching. This permit is good only for 1 year and only for the position mentioned in the application. Wisconsin teachers colleges are giving intensive summer school courses in elementary teaching which are especially designed for persons already qualified for high school teaching.

Outlook

The severe shortage of qualified elementary teachers which existed in 1948–49 is expected to continue for at least the next few years. Over 2,700 new elementary teachers were hired during the 1948–49 school year; most of these were needed to replace those lost to the profession owing to death, retirement, transfer to other fields of work, or other reasons. Losses due to turnover may remain nearly as great for the next few years. Additional teachers will be needed to take care of increasing elementary school enrollments and to replace many of the 3,500 holders of emergency credentials. Altogether, the Board of Normal School Regents estimates that Wisconsin will need 3,400 new elementary teachers each year until at least 1955.

To meet these needs, only about 1,160 students from Wisconsin teacher-training institutions were expected to complete preparation for elementary teaching in 1949. This is less than the number that completed similar preparation in 1941 and reflects the failure of enrollments at teacher-training institutions to reach prewar levels. A faculty committee of the University of Wisconsin reports "the State needs elementary teachers far in excess of its present supply before it can move in the direction of improving the quality of teaching by raising the standards of certification." The State school authorities are considering various measures to stimulate attendance at teacher-training institutions, including construction of new dormitory facilities so that rooms may be rented to students at extremely low rates. Even so, it will probably be necessary to continue to issue emergency certificates for some time.

During the 1950's, a considerable number of new elementary teachers will be needed to take care of the increased number of pupils. Elementary school enrollments will probably continue to rise until about 1956, when they are expected to be about 90,000 higher than in 1948–49. Some of the additional pupils may be added to existing small classes without increasing the need for teachers. The consolidation of one-room schools may also eliminate certain teaching positions. Therefore, it is likely that, during the period 1950–56, the number of new teachers actually needed to take care of increased enrollments will be somewhat less than the 3,000 additional teachers that would be required on the basis of one for every 30 added pupils. More teachers will also be needed to take care of the expected expansion of kindergarten facilities, particularly in those counties where kindergarten classes have not yet been provided. In addition, the number of teachers needed as replacements each year will probably grow, as the size of the elementary teaching force increases. Thus, during the late 1950's, even if the attrition rate is somewhat reduced, over 2,500 new teachers may be needed annually to replace those who leave the profession.

The demand for teachers is not expected to be nearly as great in the high school as in the elementary field during the next few years. In 1948–49, the demand for personnel grew out of the need to replace high school teachers who had left the profession; about 1,750 new teachers were hired. It is expected that a similar number will be needed during the 1949–50 school year. To meet these needs about 1,900 persons from colleges in the State completed preparation for high school teaching during 1949. In 1949 there was already an oversupply of teachers in men's physical education, art, history, and other social studies, while a shortage still existed in Latin, music, women's physical education, and home economics.

There will be an increased demand for secondary teachers as the peak enrollments pass from the elementary grades to the high schools. Beginning about 1956, the number of new teachers needed each year to take care of increased enrollments may exceed 300, if a ratio of 25 pupils per teacher is assumed. The peak enrollments in Wisconsin high schools will probably not occur until the early 1960's. Approximately a thousand new teachers will be needed annually during the late 1950's to provide for increased enrollments

and replacements, assuming no decrease in the attrition rate.

Earnings

The average teaching salary in Wisconsin in 1948–49 was about $2,600, as compared with $2,300 in 1947–48.

A survey by the Wisconsin Education Association revealed that 1948–49 median salaries in city schools, exclusive of Milwaukee, were $3,300 for high school teachers and about $2,850 for elementary teachers. Teachers in one-room rural schools had median earnings of about $2,000, while the median for those in State graded schools was around $2,200.

The city of Milwaukee has a single-salary schedule which begins at $1,400. Holders of the bachelor's degree may eventually work up to $3,000, while those who have earned the master's degree may reach $3,300. These figures do not include the cost of living adjustment of approximately $1,200 added to salary schedules in 1949. In 1948–49 the average salary in Milwaukee was about $4,035, seventh highest among those for the Nation's 20 largest cities.

WYOMING

Number of Teachers and Enrollments

Wyoming public schools had 54,000 students and nearly 2,700 classroom teachers, principals, and supervisors in 1948–49. About three-fourths of the pupils and two-thirds of the teachers were in elementary schools; 584 of the teachers were employed in rural one-teacher schools.

Certification Requirements

Minimum educational requirement for the elementary certificate is 2 years of college work, with 12 semester hours in English and social studies and 20 semester hours in specified education courses, including supervised teaching. The kindergarten certificate, valid for teaching in kindergarten or grades 1, 2, and 3, is likewise issued upon the completion of 2 years of college work—with 20 semester hours in specified education courses, including kindergarten techniques.

For the junior and senior high school certificates, one must graduate from a 4-year college course, with 15 semester hours of credit in specified academic courses and 16 hours in specified professional education courses, including supervised teaching.

Emergency certificates are sometimes issued to persons who do not meet regular requirements.

Outlook

The elementary teacher shortage which existed in 1948–49 is likely to continue in 1949–50. Only about 50 students were expected to complete training in Wyoming institutions qualifying them for standard elementary teaching certificates in 1949. This is only a fraction of the expected needs. It has been estimated that 250 new teachers (14 percent of the staff) were needed in 1948–49 to replace those leaving Wyoming schools; it is likely that almost as many will be required for this purpose in the next year or two. An additional need will be for teachers to replace some of those who held emergency elementary certificates in 1948–49; 187 such certificates were issued in that year. A third need will be for teachers to handle the anticipated increases in enrollment. Altogether, these demands will probably add up to a sum far greater than the supply available from Wyoming colleges and other sources. The rural and small consolidated schools will suffer most from the inadequate supply.

Demands for elementary teachers will be even heavier during most of the 1950 decade. Enrollments in grades 1 to 8 will rise to a peak about 1957–58, when about 9,000 more children may be enrolled than in 1948–49. Assuming a ratio of one teacher to every 30 pupils, this would call for the employment of about 300 additional teachers during the 9-year interval to handle the increased enrollment. As the size of the teaching staff grows, the number of vacancies owing to deaths or resignations may tend to increase also; if the attrition rate should remain about 14 percent, there would be nearly 300 such vacancies annually in the late 1950's.

The high schools (grades 9 to 12) are likewise expecting a continued shortage of qualified teachers in 1949–50, though the situation is less acute than in the lower grades. The estimated number needed in 1948–49 to replace people leaving Wyoming schools was 200, or 22 percent of the staff; the number needed for this purpose in 1949–50 will probably be about as high. In addition, a considerable number of emergency teachers may need to be replaced, and perhaps a few extra teachers will need to be hired because of slightly increased enrollments. The number of

Wyoming college students expected to complete courses of study in 1949 entitling them to regular high school certificates was estimated at 97. Even after this source and out-of-State sources have been tapped, there will probably still be shortages, especially in certain subject fields, such as music, fine arts, industrial arts, and commerce.

Enrollment and staff increases in high schools are expected to be small in future years. The probable gain in enrollments is estimated to be about 3,500 between 1948–49 and 1958–59. Assuming a ratio of 25 pupils per teacher, this increase would require an average of only about 15 additional teachers per year. The withdrawal rate will probably drop from the high level of the late 1940's. There is little indication, therefore, that the annual demand for high school teachers will show much increase in the next decade.

Earnings

The average 1948–49 salary was $1,764 for rural teachers, $2,552 for other elementary teachers, and $3,013 for high school teachers.

Cheyenne's single-salary schedule for 1949–50 is shown below:

Educational preparation	Annual salary		
	Minimum	Increments	Maximum
2 years	$1,920	8 @ $120	$2,880
3 years	2,040	8 @ 120	3,000
Bachelor's degree	2,160	14 @ 120	3,840
Master's degree	2,280	14 @ 120	3,960

Salary schedules in some school districts are better than the one for Cheyenne, especially with respect to beginning salary.

SOURCES OF INFORMATION AND ESTIMATING PROCEDURES

In analyzing the employment outlook for elementary and secondary school teachers, the basic data are, of course, prospective enrollments. The over-all forecasts of elementary and high school enrollments in public and private schools for the United States, as discussed in the first section of this report, are taken from the Census Bureau's current population report Series P–25, No. 18, *Forecasts of Population and School Enrollment in the United States: 1948 to 1960.* The teacher estimates for the country as a whole, based on the Census Bureau enrollment forecasts, are largely from the mimeographed report of the National Education Association, *Probable Demand for Teachers in the United States for the Decade 1949–50 through 1958–59.*[14]

The forecasts of enrollments and teachers needed in the public day schools by State were prepared by the Bureau of Labor Statistics, unless otherwise specified in the individual State reports. A few State departments of education or other local agencies have developed their own detailed projections of school enrollments and forecasts of teachers required; these studies have been used wherever possible. The general procedure used by the Bureau of Labor Statistics in estimating pupil enrollments and teacher needs by State is described below.

For purposes of projection, United States Office of Education estimates of enrollment in public day schools by grade in the school year 1945–46 (the latest year available) served as the point of departure. Estimates of the proportion of students continuing into later grades were based on a projection of prewar trends in the length of schooling for each State. It was assumed that the increase in the "holding-power" of the schools would follow the patterns shown by Office of Education data in the prewar period. The increase projected in the length of school attendance between 1950 and 1960 for a given State was based on the 1930–40 rates of increase shown by States that started in 1930 with a level of 'holding-power" similar to that of the given State in 1940.

It should be noted that rates of attrition between successive grades are influenced not only by the differentials in "holding-power" of the schools but also by the pattern of inter-State migration. The projection of prewar trends in attrition assumes, in general, a continuation of prewar patterns of interstate migration.

In projecting the prospective inflow of students into the school system, use was made of estimates of births by State of residence which were available from the National Office of Vital Statistics through the year 1948. Forecasts of births for the years 1949–53 were based on projections of national trends by the Bureau of the Census. These forecasts assume a fairly sharp and continuous decrease in births between 1949 and 1953.

In order to determine the number of additional teachers needed in each State, the increase in enrollments was calculated and a ratio of 30 pupils per teacher in grades 1 to 8 and 25 pupils per teacher in grades 9 to 12 was then applied. No allowance was made for a change in the pupil load carried by teachers already on the staff.

A second major factor in estimating teacher demand by State is that of replacing the large number of teachers who, each year, leave the teaching profession or transfer to teaching in another State. The chief sources of information used for determining replacement rates were the Maul report[15] and the 1949 study conducted by the Council of State Governments.[16] These rates, which vary considerably by State and for elementary and high school teachers, were applied to the total number of teachers.

The source of information on teacher supply was the number of college and university students completing standard certification requirements as reported by the Maul study or as given by the States.

A large amount of the statistical data, other than the State forecasts, used in this report were taken from other published sources. Much of the basic information is from the biennial reports of the U. S. Office of Education. The 1948–49 figures on enrollments, numbers of teachers, numbers of emergency certificates, and average salaries are estimates from the mimeographed release, *Advance Estimates of Public Elementary and Secondary Schools for 1948–49*, prepared by the Research Division, National Education Association. Salary schedules for most of the cities are from the NEA publication, *Educational Research Service*, Circular No. 9, 1948, and Circular Nos. 2 and 4, 1949; some were supplied by State education associations.

In addition, the various State departments of education and educational organizations furnished much useful information through their publications or through interviews.

☆ U. S. Government Printing Office: 1949—855370

[14] In these estimates, elementary schools have been defined as grades 1 to 8 (including kindergarten where established), and secondary schools as grades 9 to 12. This is the procedure followed insofar as possible in this report. However, because of differences in school organization and in the methods of reporting used in different States, the seventh and eighth grades in junior high schools have no doubt been classed with secondary schools in some instances.

[15] Maul, Ray C., *Teacher Supply and Demand in the United States.* National Education Association, 1201 Sixteenth Street, N.W., Washington 6, D.C.

[16] Council of State Governments, *The Forty-Eight State School Systems,* Chicago, Illinois.

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